

Diseño en Android

Septiembre 2012

Por José Díaz

@jamdiazdiaz

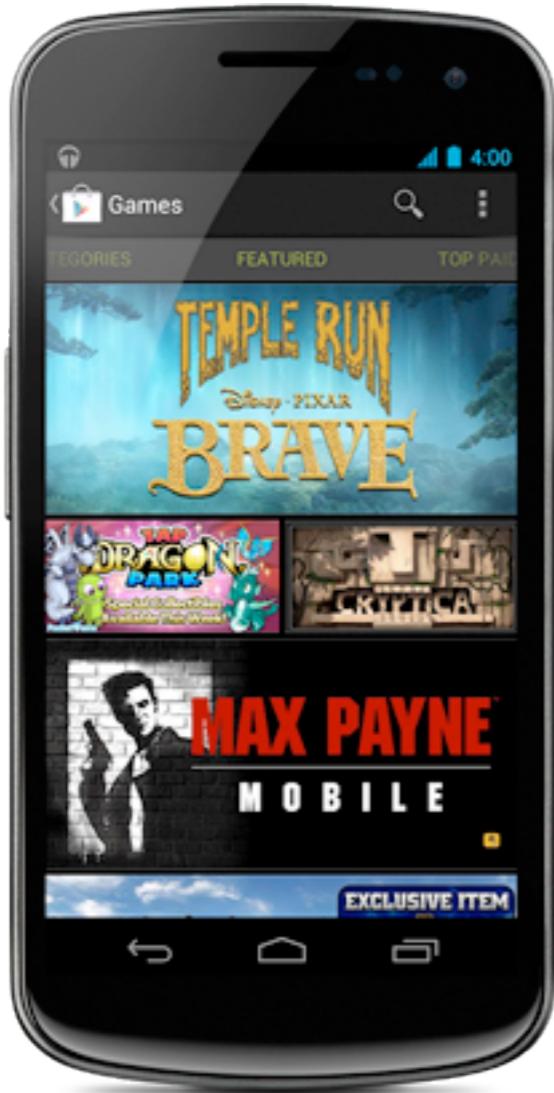
jose.diaz@joedayz.pe

Plataforma Popular



Cada día mas de 1 millón de
nuevos dispositivos Android
son activados a nivel mundial

**Un simple binario para
smartphones, tablets y otros
dispositivos**



1.5 Billones de descargas
por mes desde Google
Play

Diseño en Android

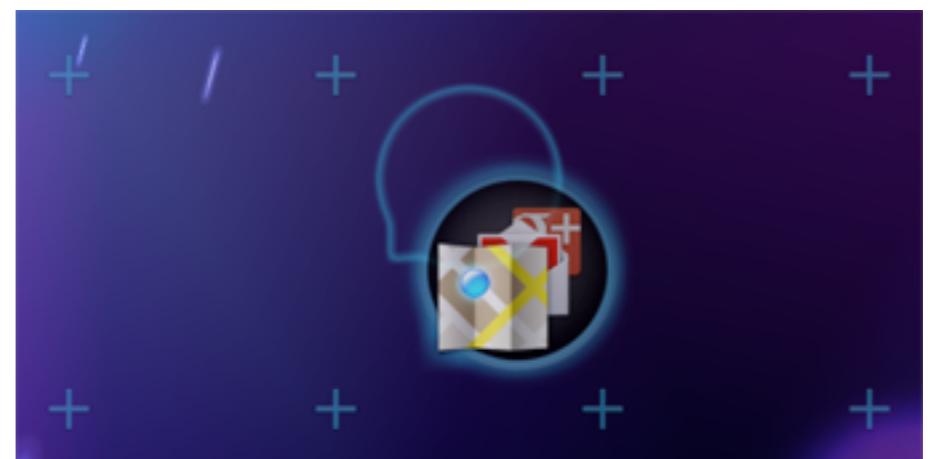


Principios de Diseño

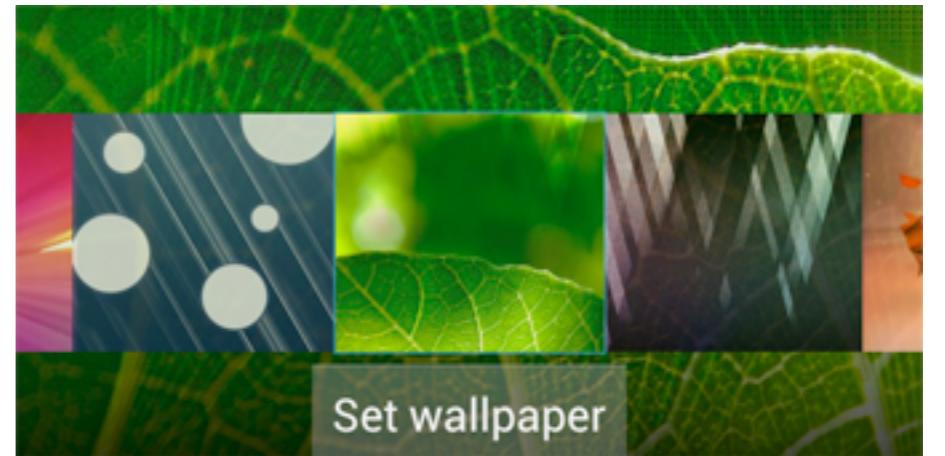
Deleitar en diferentes formas



Objetos reales en lugar de botones y menus



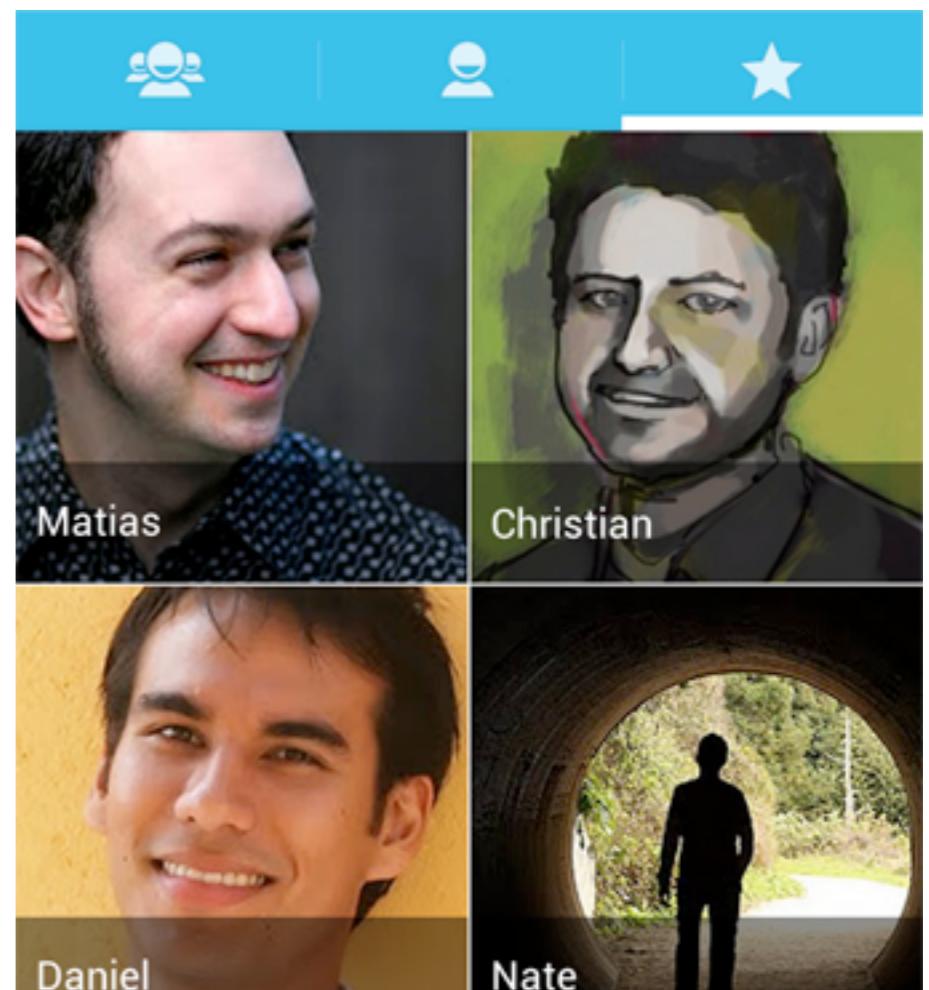
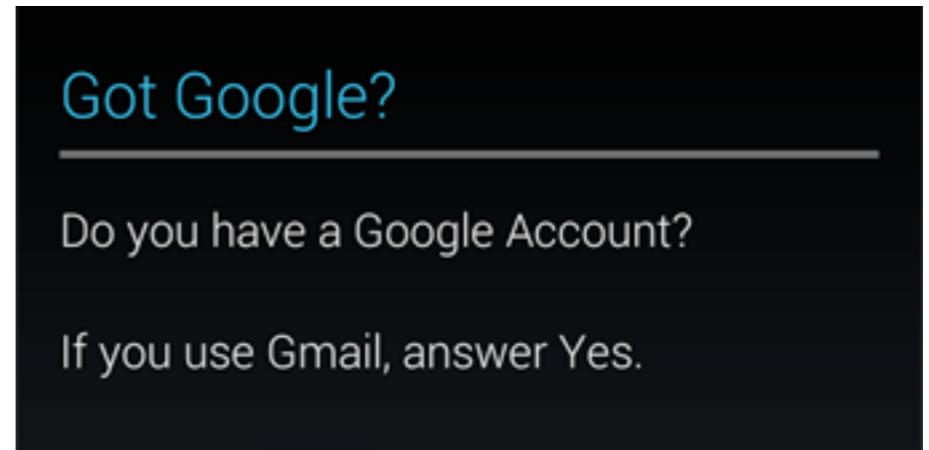
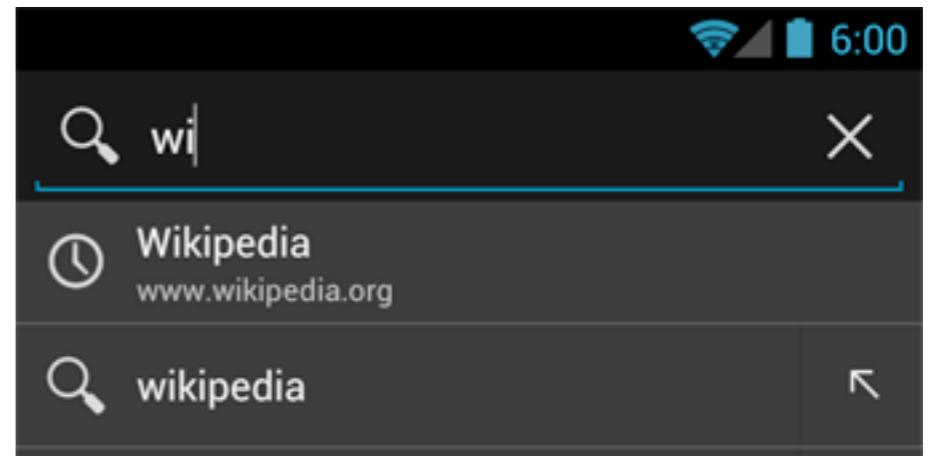
Permitir personalización



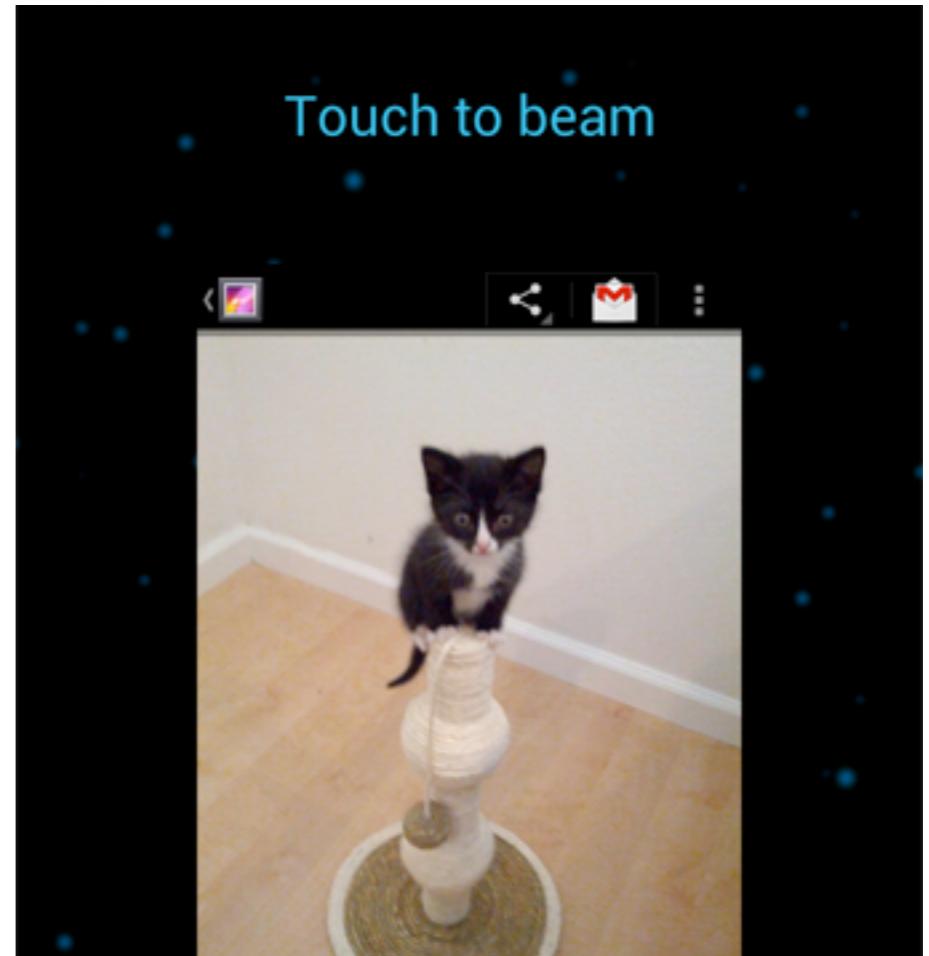
Conocer al usuario

Ser breve

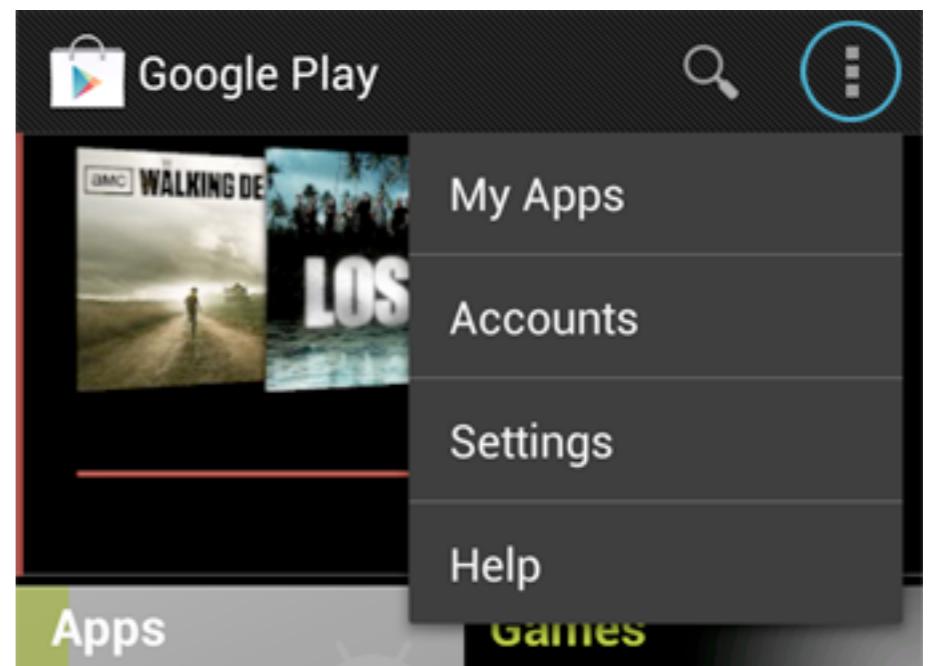
Figuras son mejor que palabras



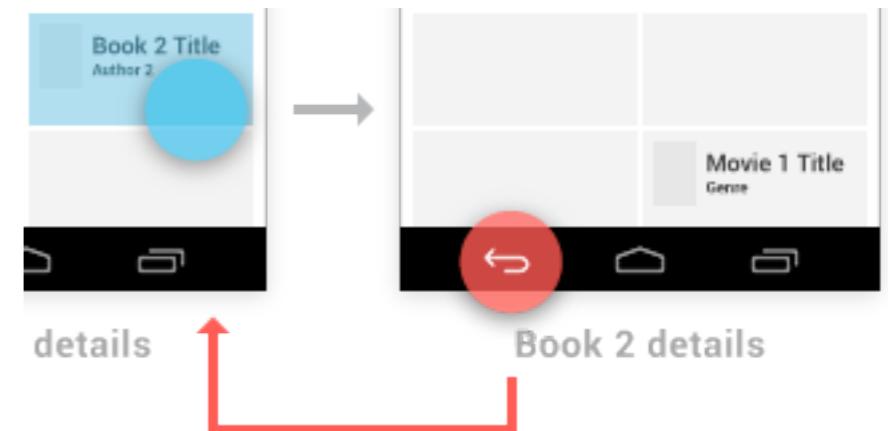
Decidir por el y darle opción final



Solo mostrar lo que se necesita cuando es necesario



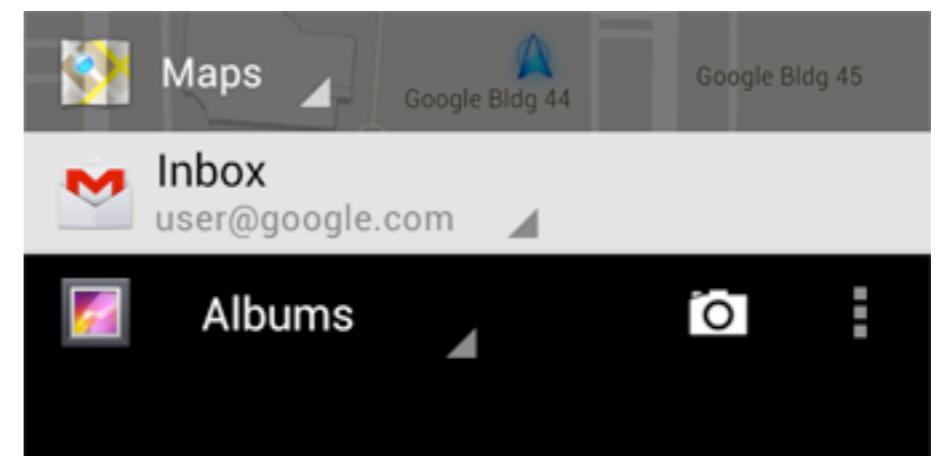
Debería saber siempre donde estoy



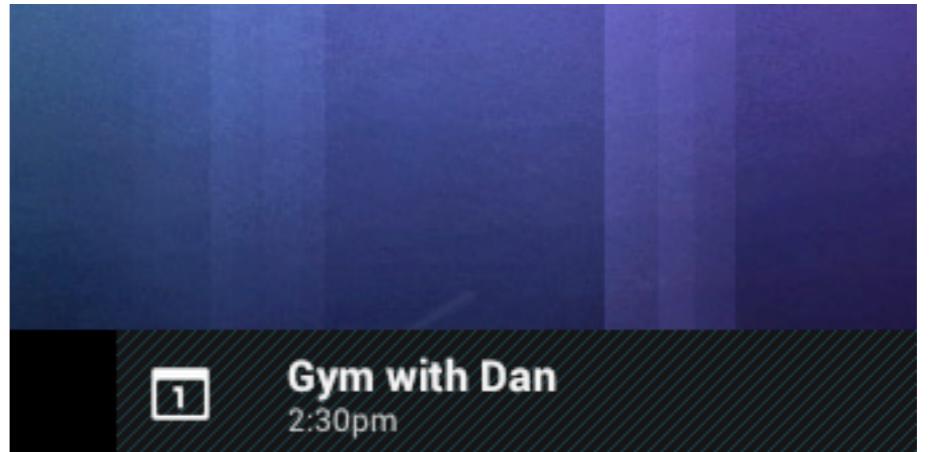
Sincronizar datos

Browser	<input checked="" type="checkbox"/>
Last synced 7/12/2012 5:27 PM	
Calendar	<input checked="" type="checkbox"/>
Last synced 7/13/2012 4:26 PM	
Contacts	<input checked="" type="checkbox"/>
Last synced 7/13/2012 12:34 PM	

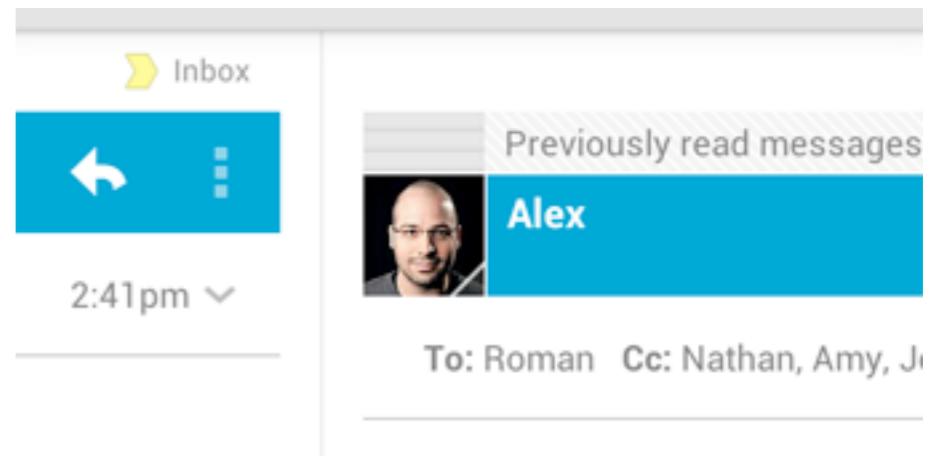
Si luce igual, debe trabajar igual



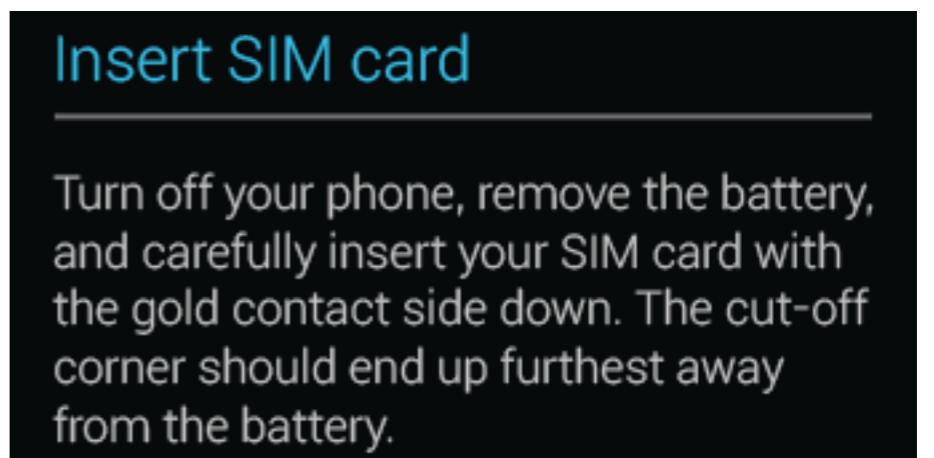
Interrumpeme si es necesario



Trucos deben funcionar en
todos lados



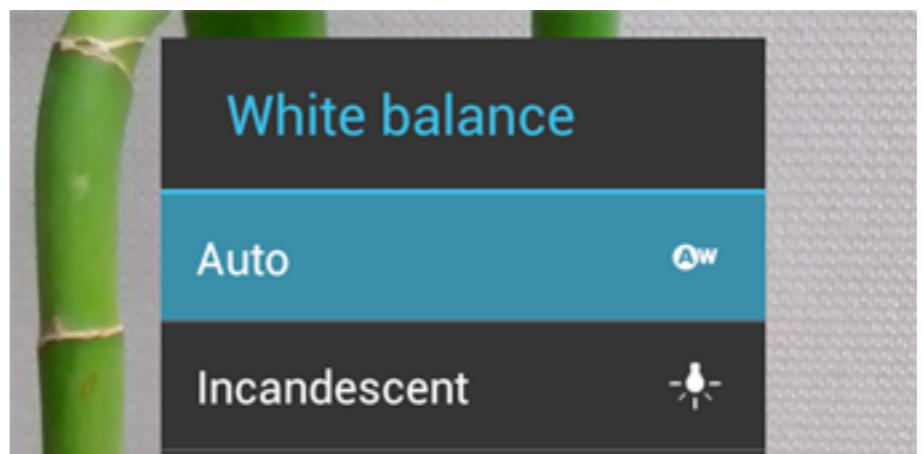
Ser gentil al dar información



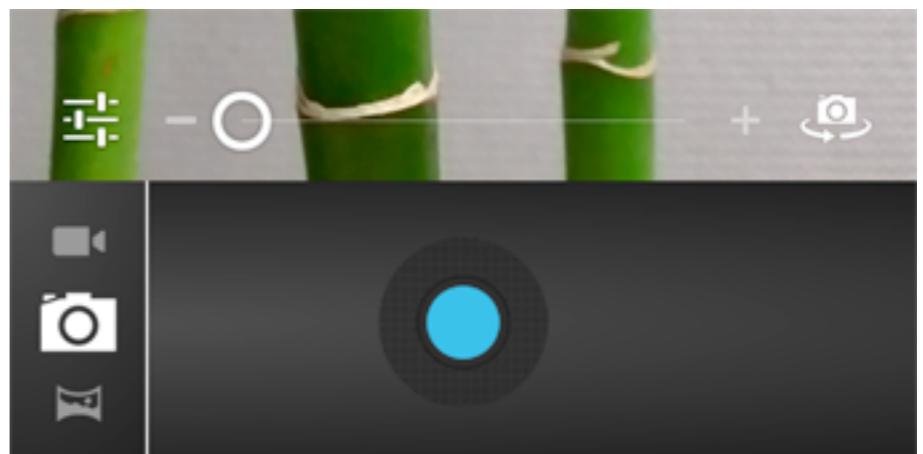
Realizar complejas tareas en
pequeños pasos



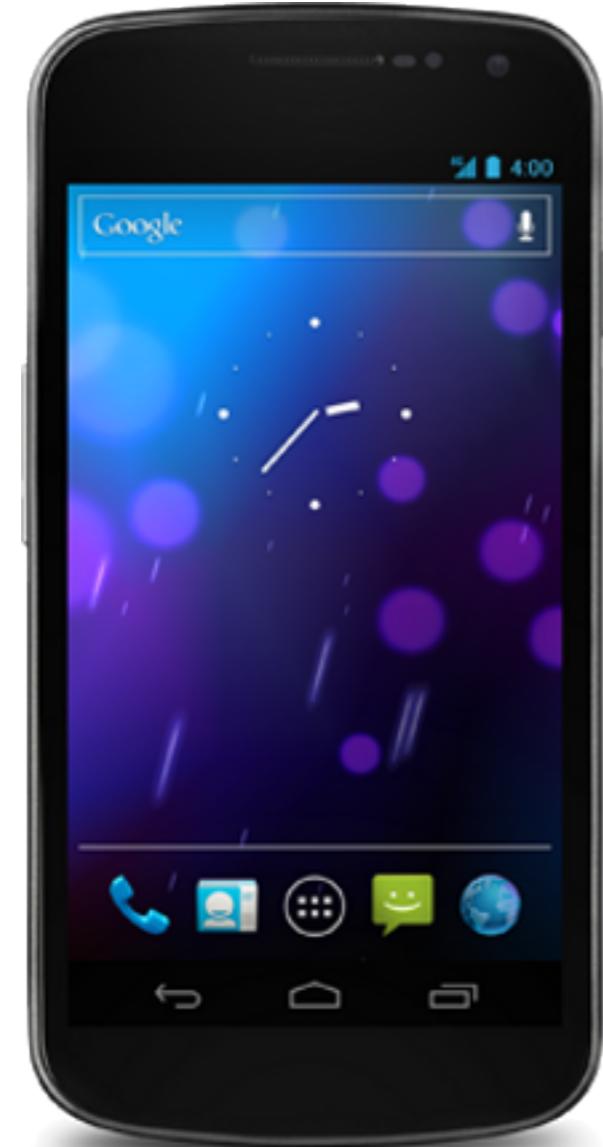
Hacer que lo complicado sea
super sencillo



Que las cosas importantes
sean rapidas de usar



Revisión de UI



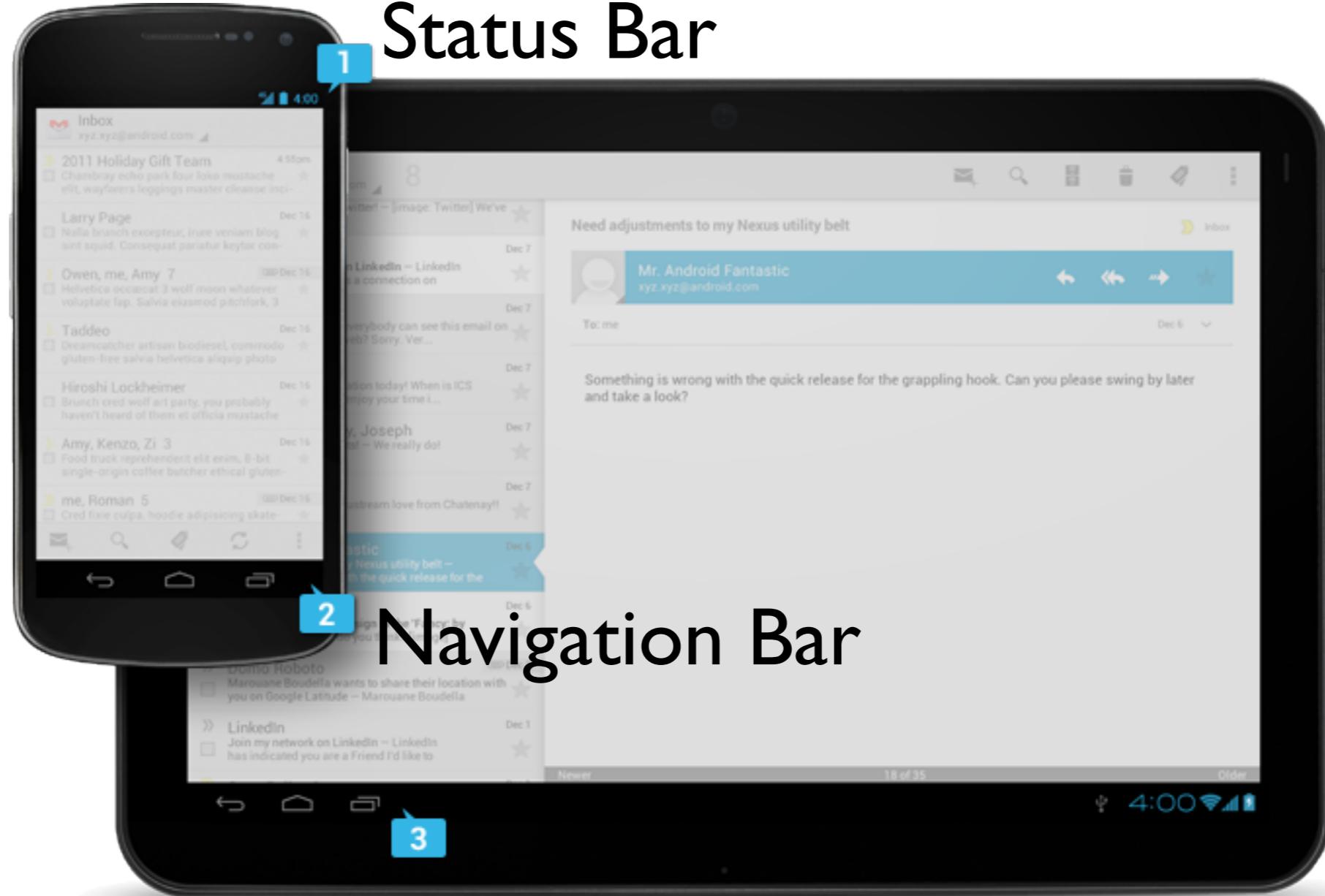
Home Screen



App Screen

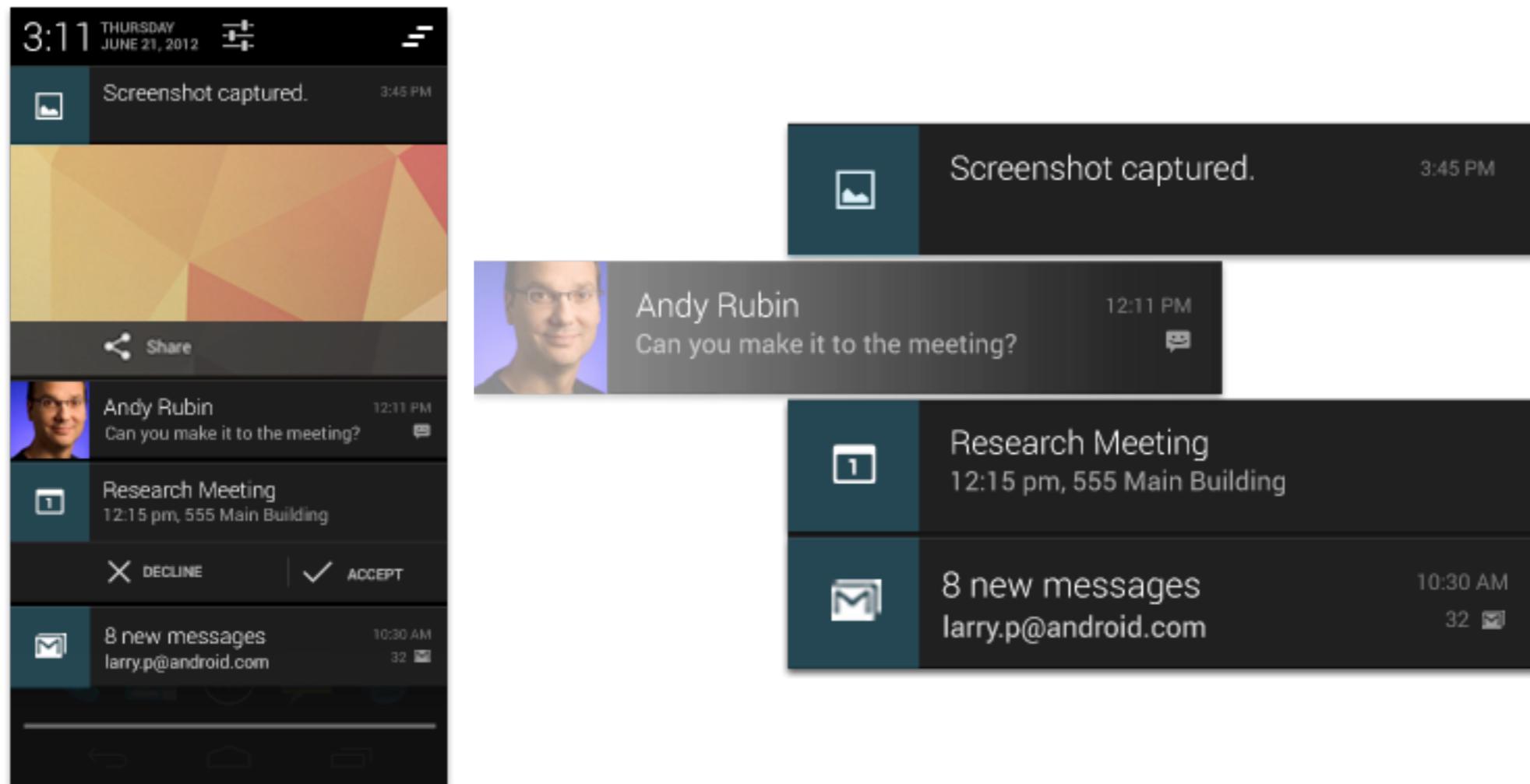


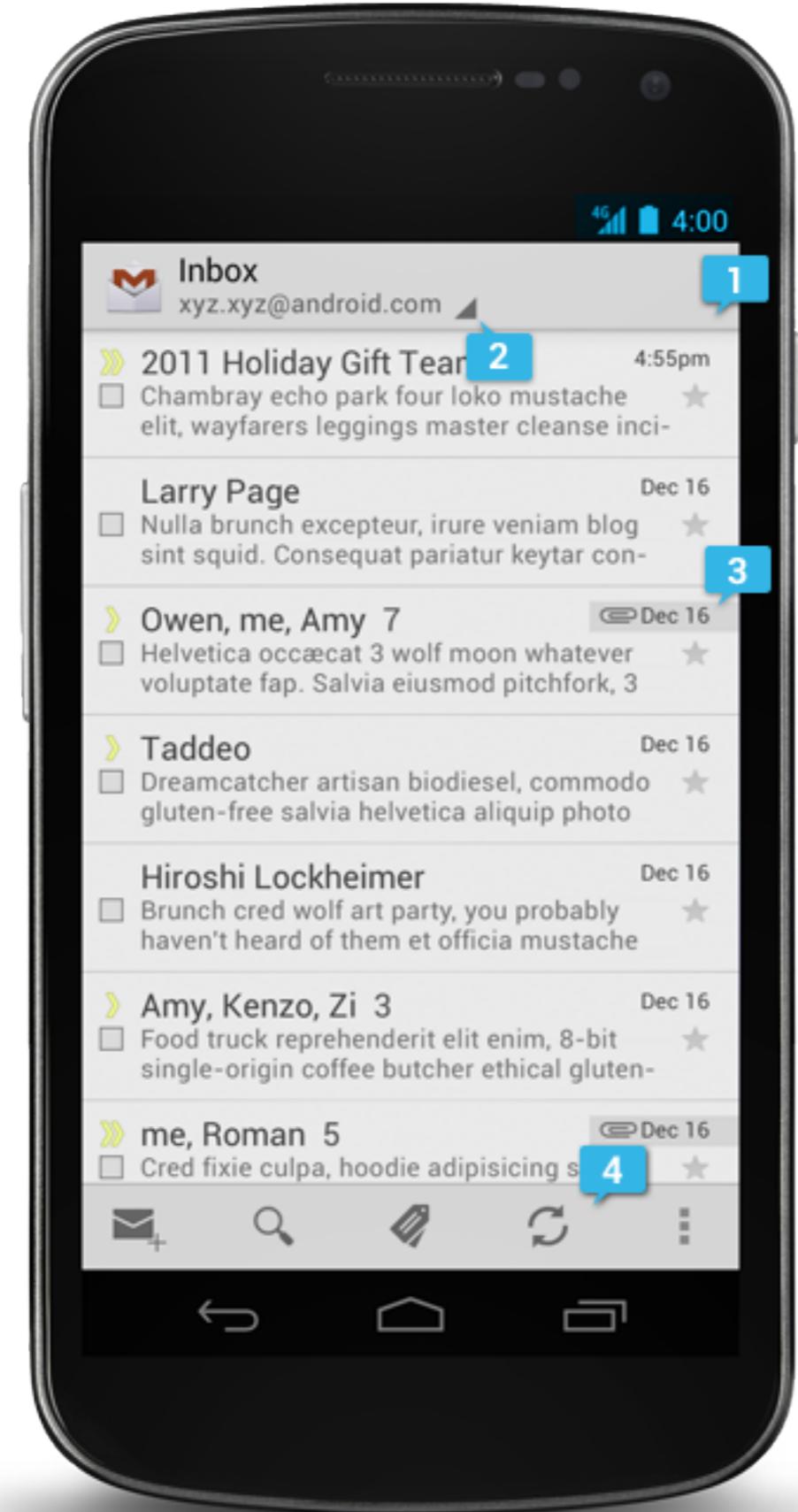
Recent Screen



Combined Bar

Notificaciones





I. Main Action Bar

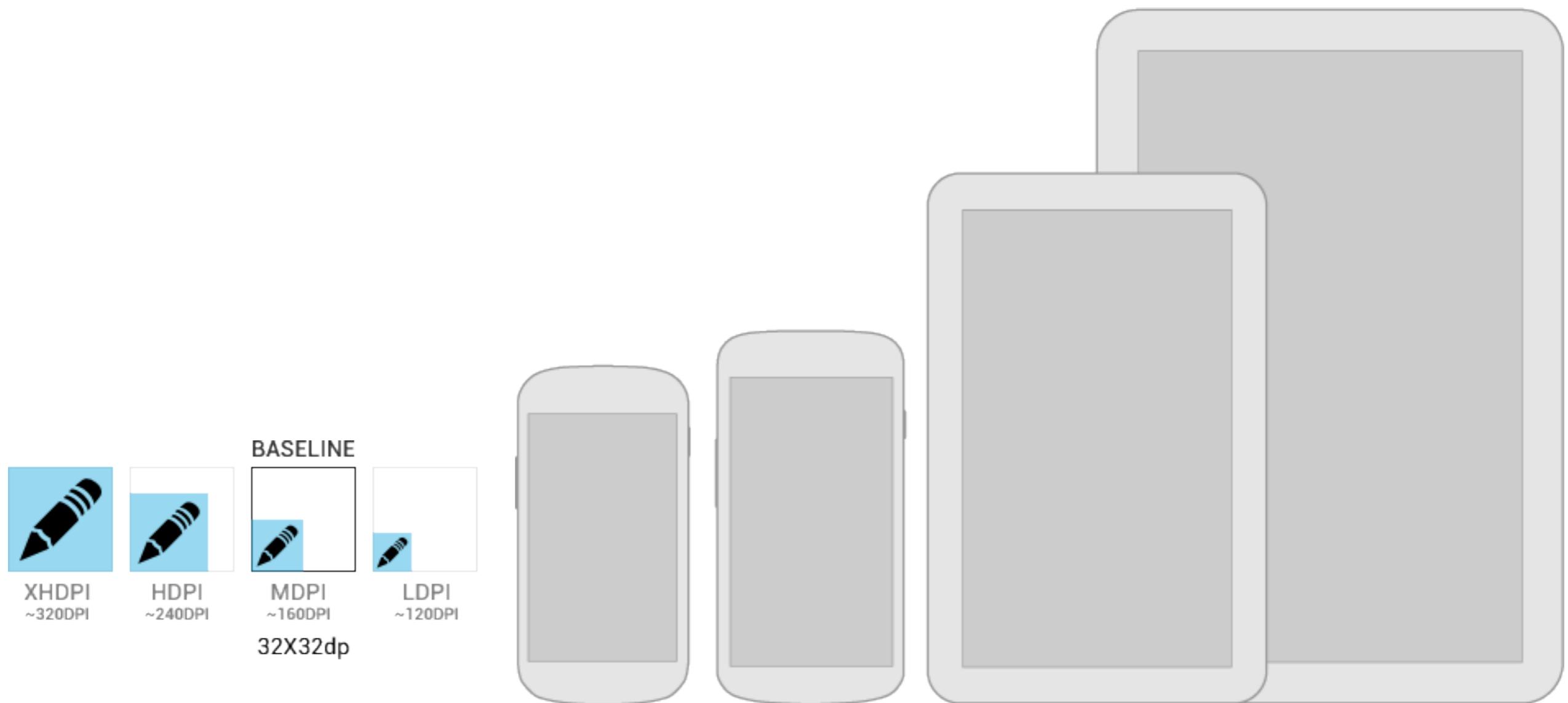
II. View Control

III. Area Content

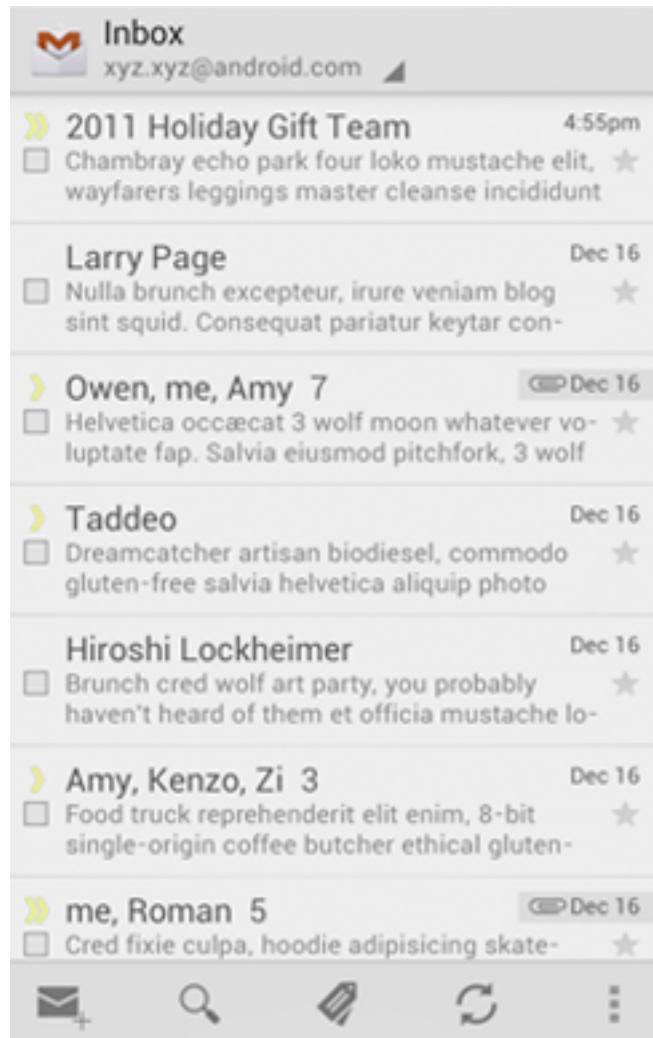
IV. Split Action Bar

Estilo

Dispositivos y Displays



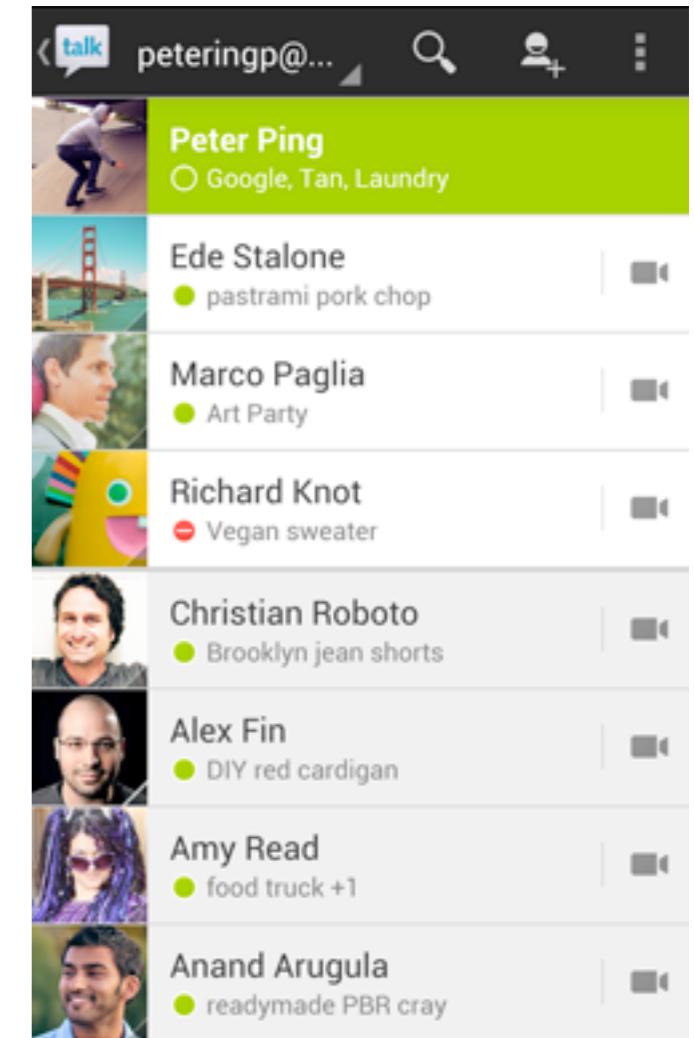
Temas



Holo light



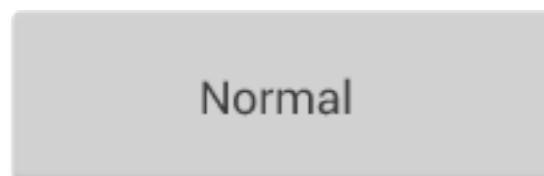
Holo Dark



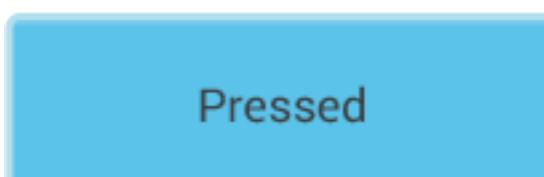
Holo Light
con Dark action
bar

Touch Feedback

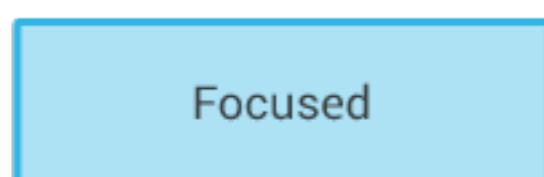
Estados



REMAINS STATIC



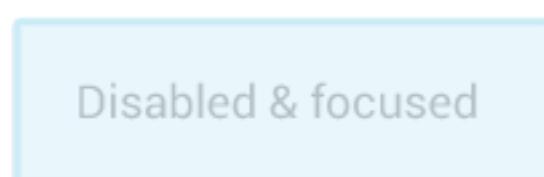
ILLUMINATES WITH COLOR



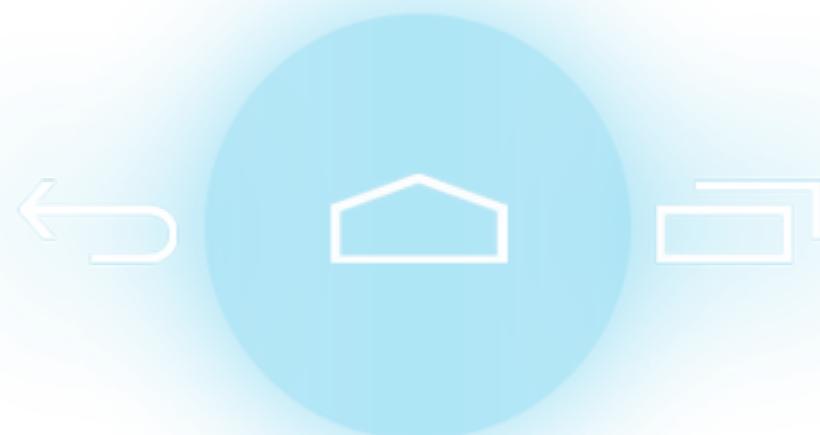
DRAWS 50% OF THE PRESSED VALUE
(OPTIONAL 2DP BORDER FILL AT PRESSED VALUE)



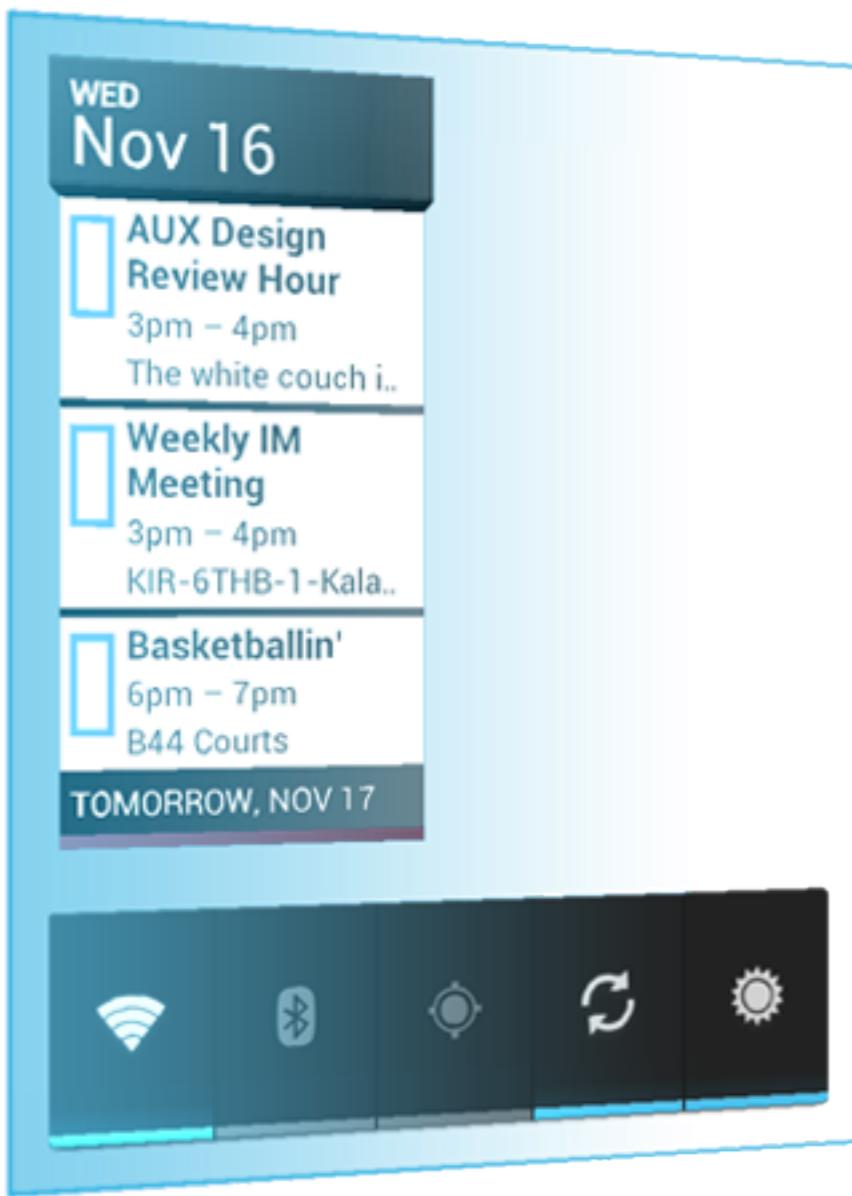
DRAWS 30% OF THE NORMAL STATE



DRAWS 30% OF THE FOCUSED STATE

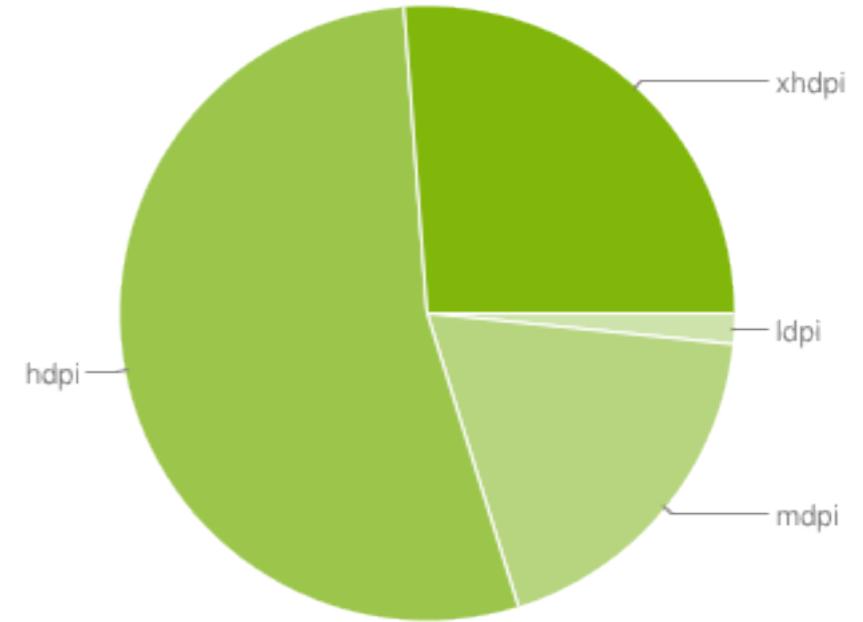
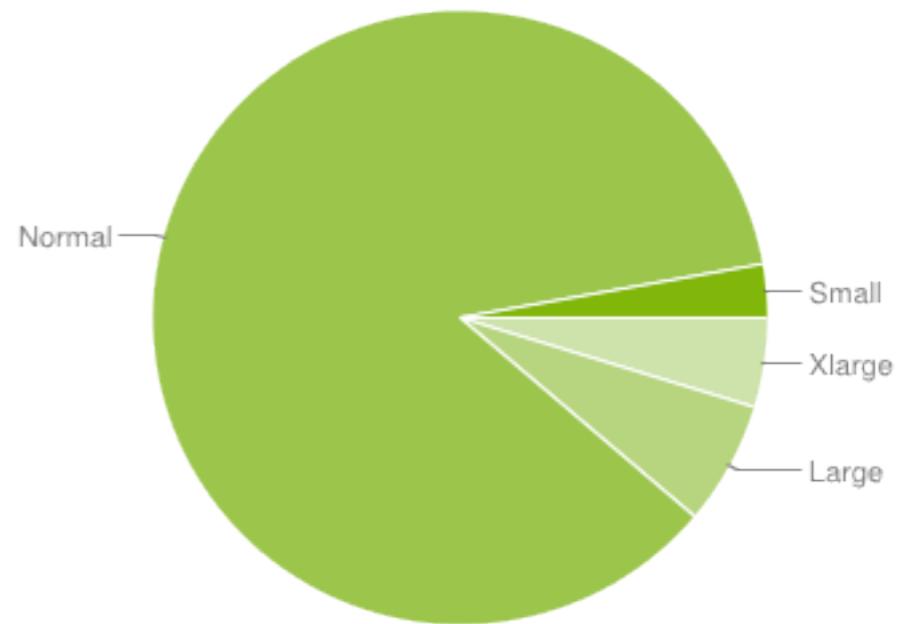
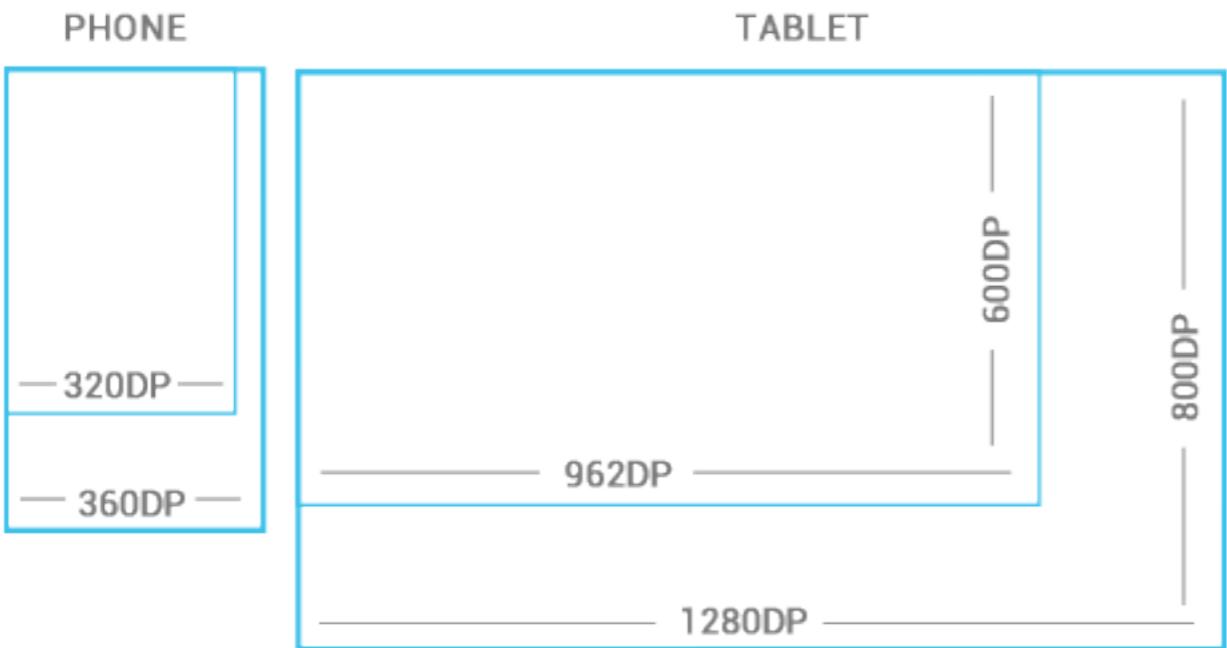


Comunicación



Límites

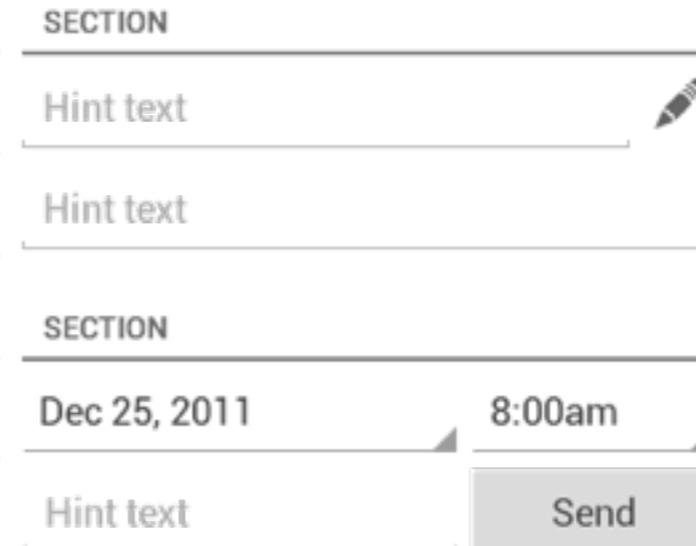
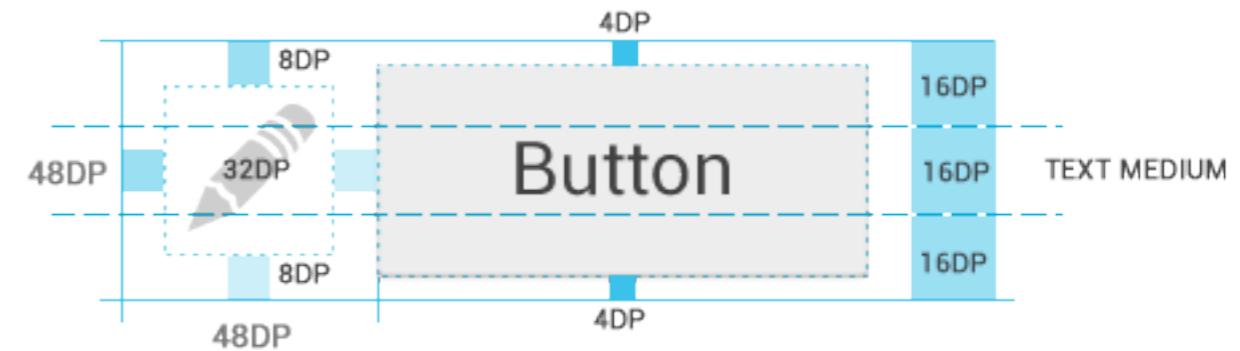
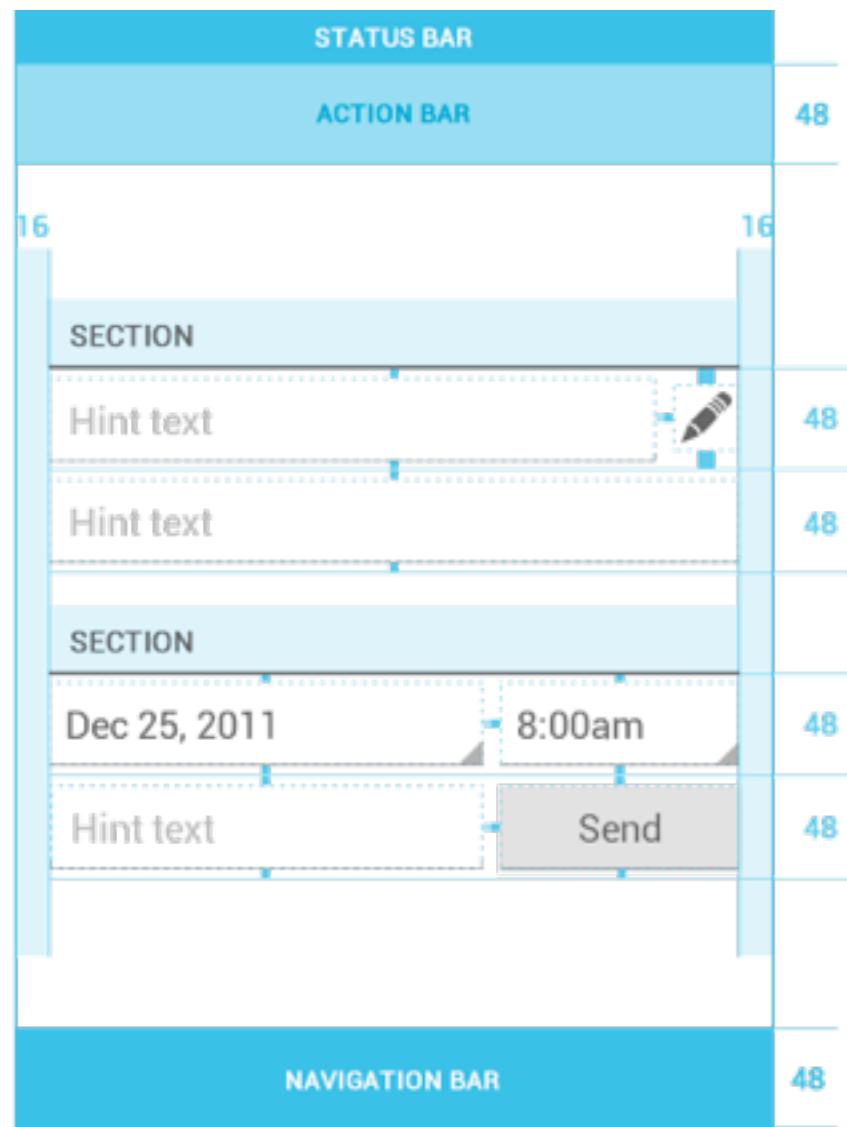
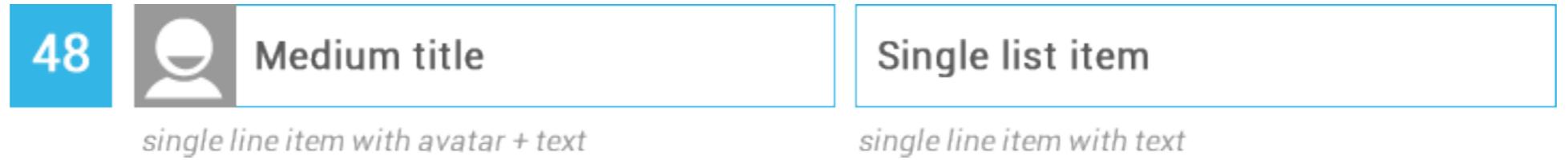
Metricas y Grids



	ldpi	mdpi	hdpi	xhdpi
small	1.1%		1.7%	
normal	0.4%	11.4%	51.9%	22.3%
large	0.1%	2.5%		3.9%
xlarge		4.7%		

Data collected during a 7-day period ending on September 4, 2012

48dp



Roboto **SUNGLASSES**

Self-driving robot ice cream truck

Fudgesicles only 25¢

ICE CREAM

Marshmallows & almonds

#9876543210

Music around the block

Summer heat rising up from the sidewalk

Tipografía

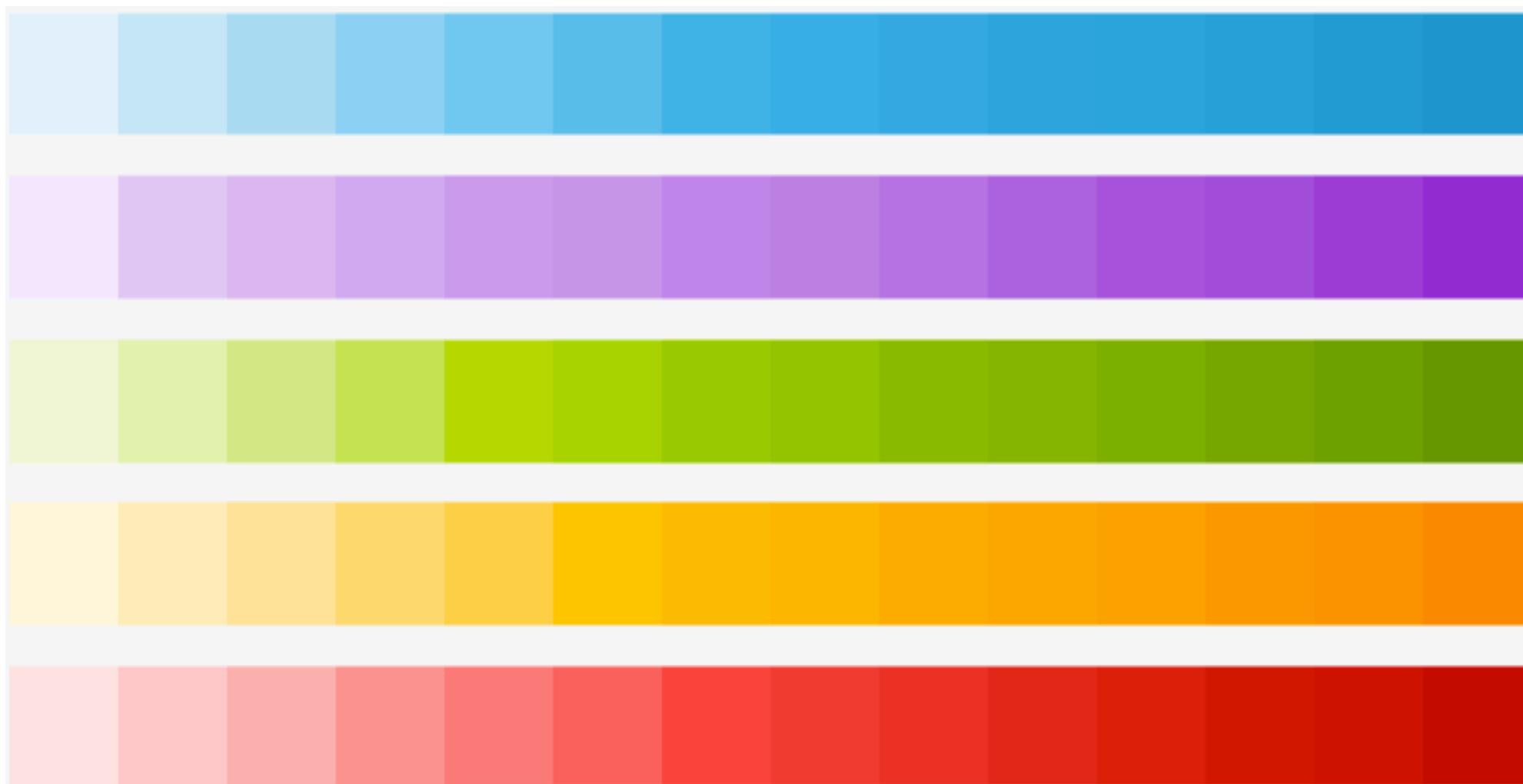
[Download Roboto](#)

[Specimen Book](#)

Color



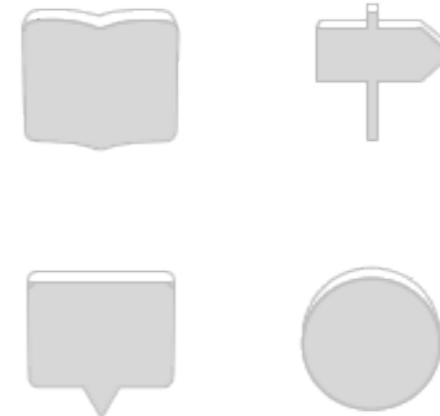
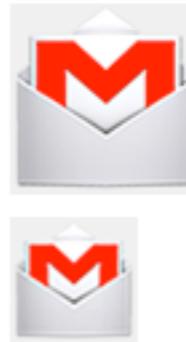
[Download the swatches](#)



Iconografía



Launcher



Sizes & scale

- Launcher icons on a mobile device must be **48x48 dp**.
- Launcher icons for display on Google Play must be **512x512 pixels**.

Proportions

- Full asset, **48x48 dp**

Style

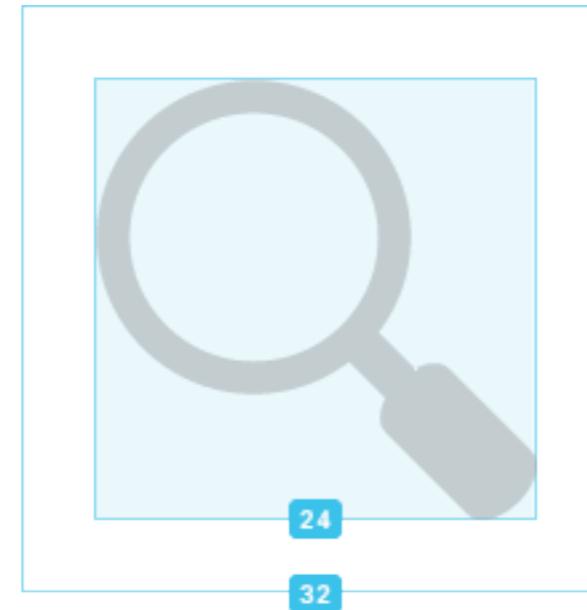
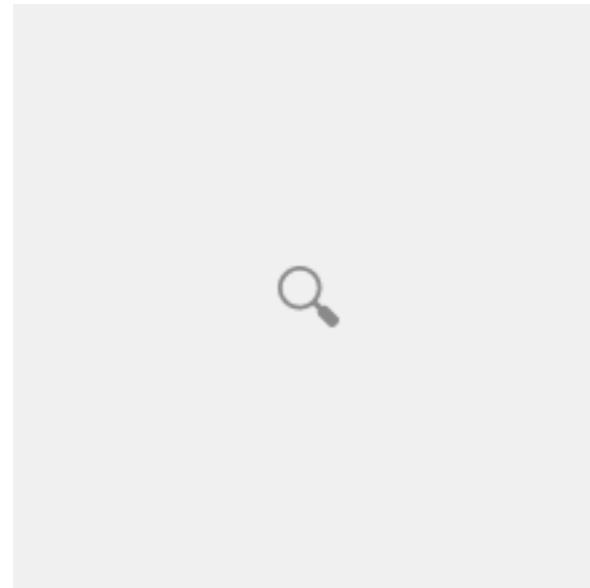
Use a distinct silhouette. Three-dimensional, front view, with a slight perspective as if viewed from above, so that users perceive some depth.

Launcher



Action Bar

[Download the Action Bar Icon Pack](#)



Sizes & scale

- ❑ Action bar icons for phones should be **32x32 dp**.

Focal area & proportions

- ❑ Full asset, **32x32 dp**
Optical square, **24x24 dp**

Style

Pictographic, flat, not too detailed, with smooth curves or sharp shapes. If the graphic is thin, rotate it 45° left or right to fill the focal space. The thickness of the strokes and negative spaces should be a minimum of 2 dp.

Action Bar

Colors

Colors: #333333

Enabled: 60% opacity

Disabled: 30% opacity



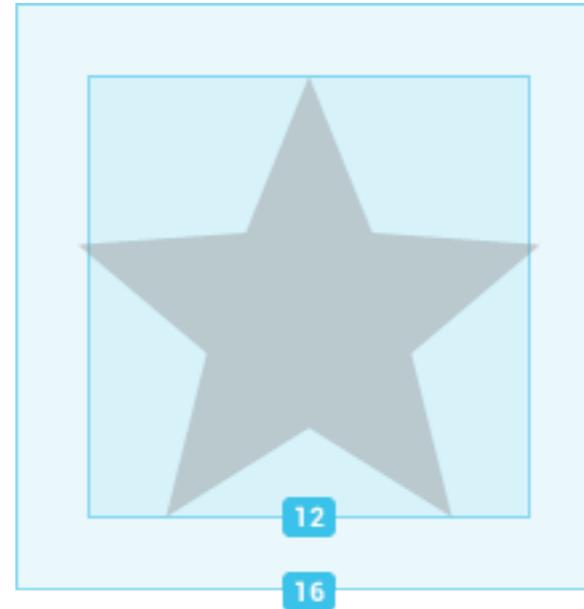
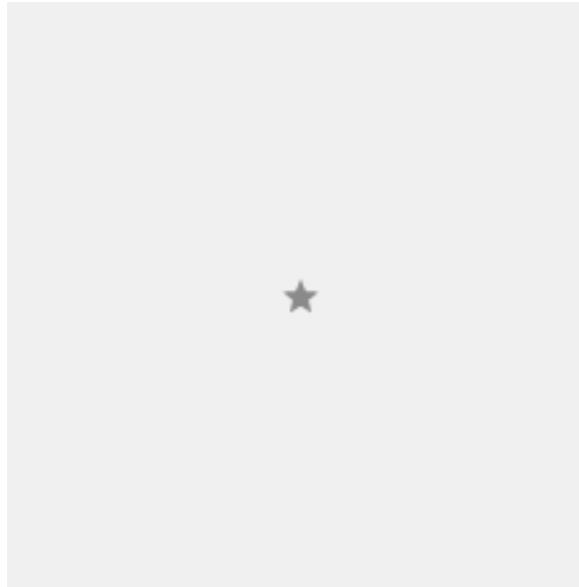
Colors: #FFFFFF

Enabled: 80% opacity

Disabled: 30% opacity



Iconos contextuales



Sizes & scale

Small icons should be **16x16 dp**.

Focal area & proportions

Full asset, **16x16 dp**
Optical square, **12x12 dp**

Style

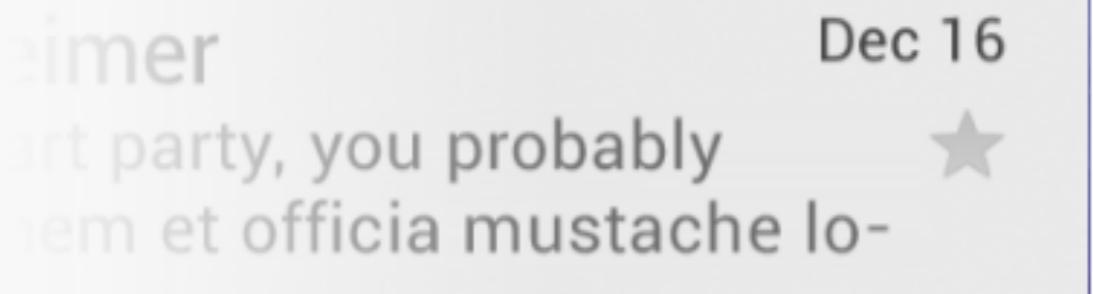
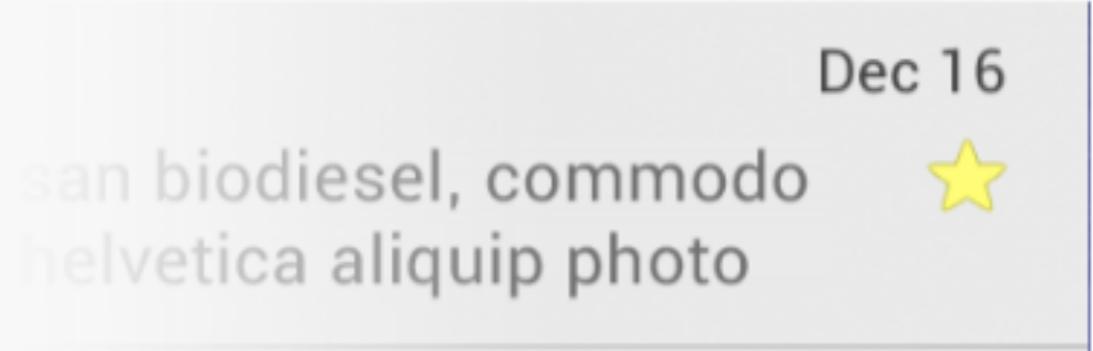
Neutral, flat, and simple. Filled shapes are easier to see than thin strokes. Use a single visual metaphor so that a user can easily recognize and understand its purpose.

Iconos contextuales

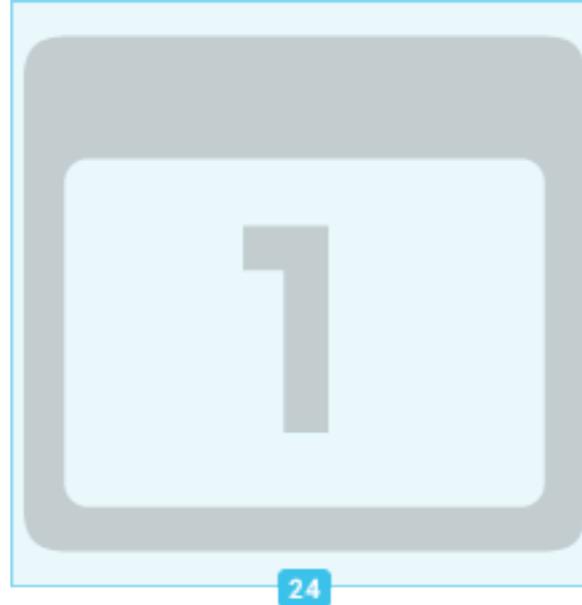
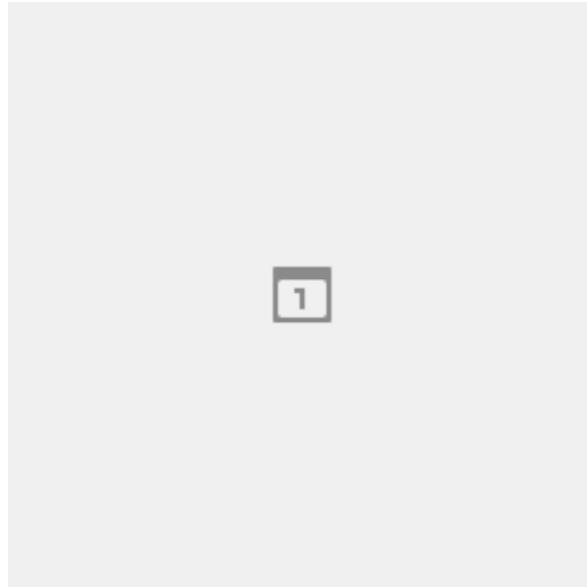


Colors

Use non-neutral colors sparingly and with purpose. For example, Gmail uses yellow in the star icon to indicate a bookmarked message. If an icon is actionable, choose a color that contrasts well with the background.



Iconos de notificación



Sizes & scale

- Notification icons must be **24x24 dp**.

Focal area & proportions

- Full asset, **24x24 dp**
Optical square, **22x22 dp**

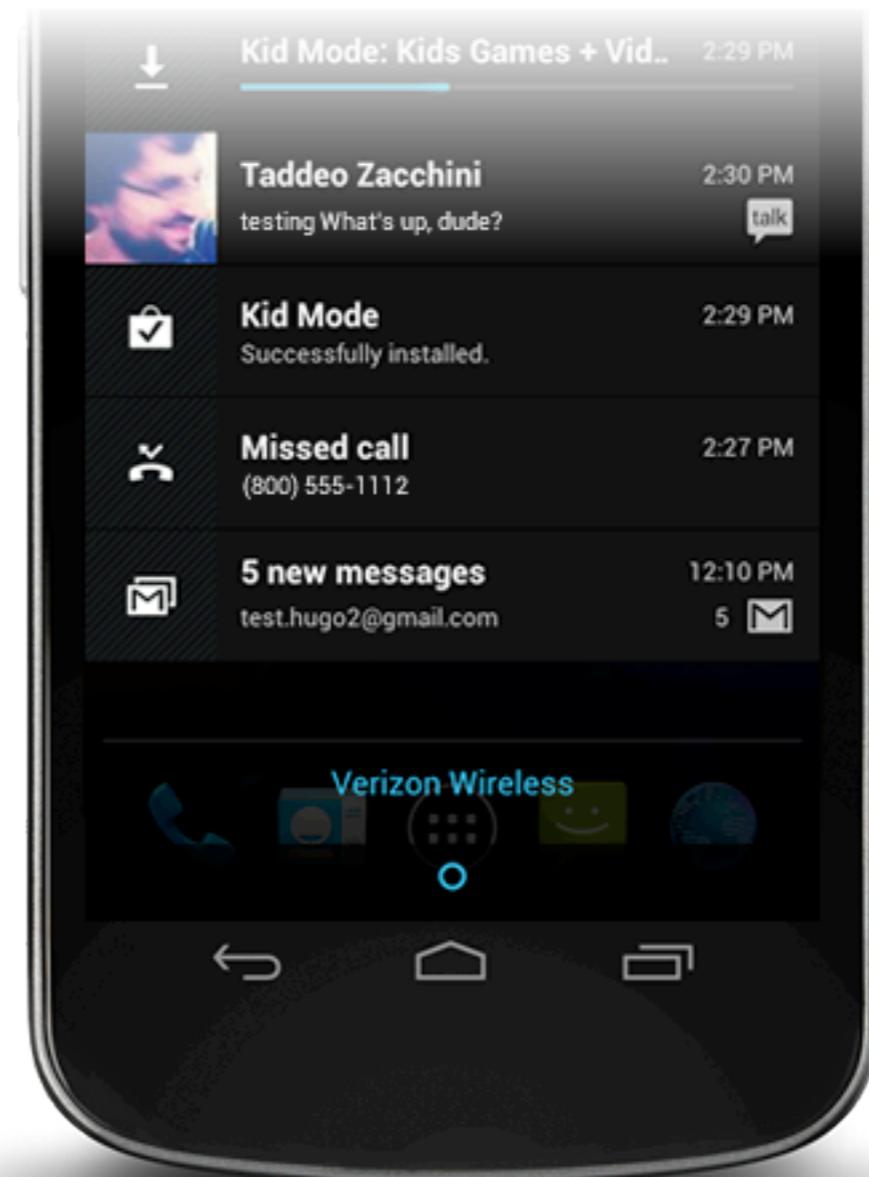
Style

Keep the style flat and simple, using the same single, visual metaphor as your launcher icon.

Iconos de notificación

Colors

Notification icons must be entirely white. Also, the system may scale down and/or darken the icons.



Textos

1. Keep it brief. From the setup wizard:

✗ Too formal

Consult the documentation that came with your phone for further instructions.

✓ Better

Read the instructions that came with your phone.

2. Keep it simple. From the Location settings screen:

✗ Confusing

Use GPS satellites

When locating, accurate to street level.

✓ Better

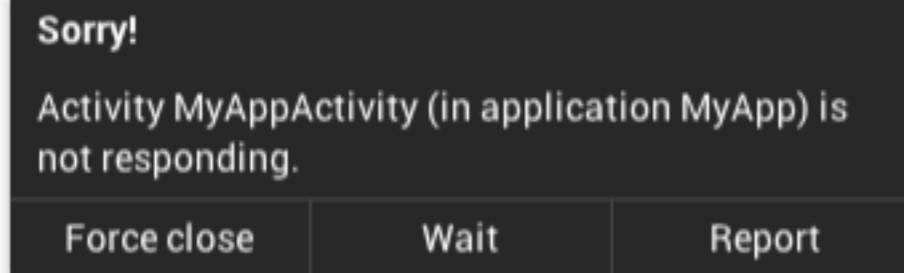
GPS

Let apps use satellites to pinpoint your location.

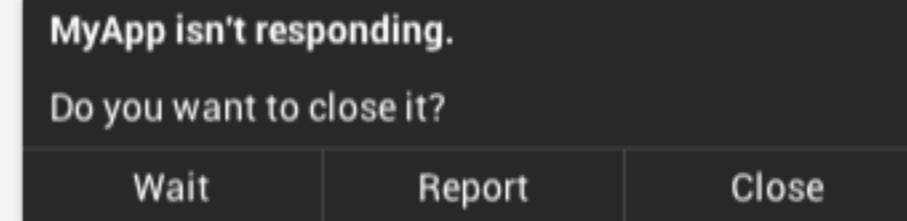
Textos

3. Be friendly. Dialog that appears when an application crashes:

✗ Confusing and annoying—"Sorry" just rubs salt in the wound.



✓ Shorter, more direct, no faux-apologetic title:



4. Put the most important thing first.

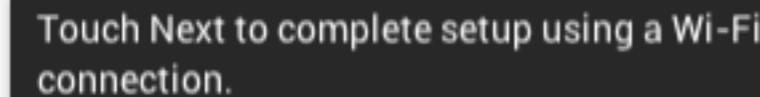
✗ Top news last



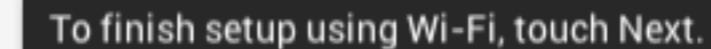
✓ Top news first



✗ Task last



✓ Task first



Textos

5. Describe only what's necessary, and no more.

✗ From a Setup Wizard screen

Signing in...

Your phone needs to communicate with Google servers to sign in to your account. This may take up to five minutes.

✓ From a Setup Wizard screen

Signing in...

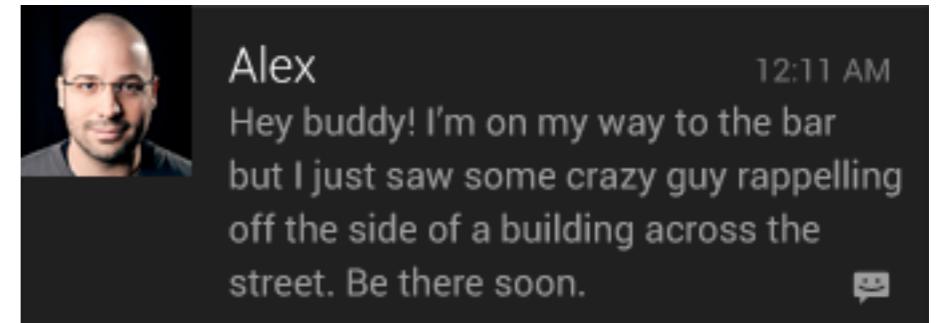
Your phone is contacting Google. This can take up to 5 minutes.

Patrones de Diseño



Jelly Bean - Android 4.1

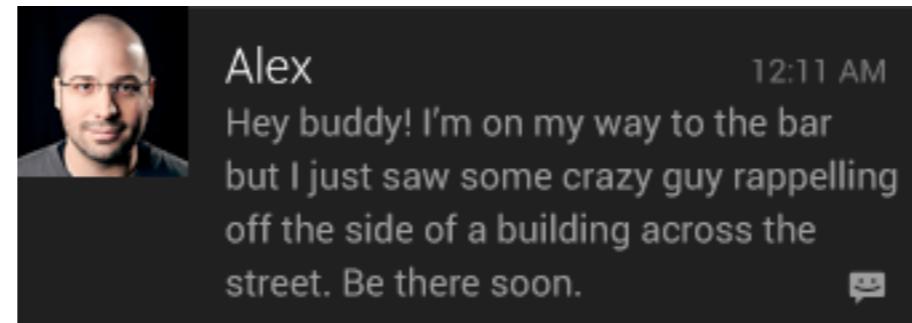
Enhancements a las notificaciones



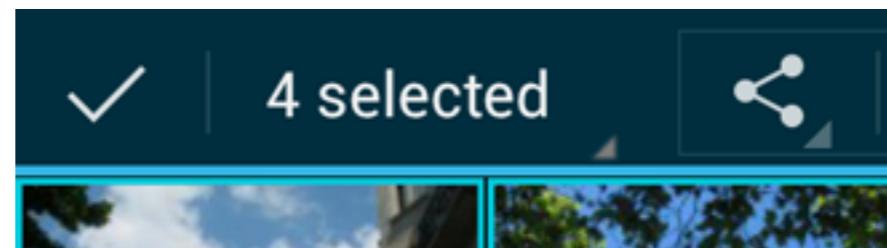
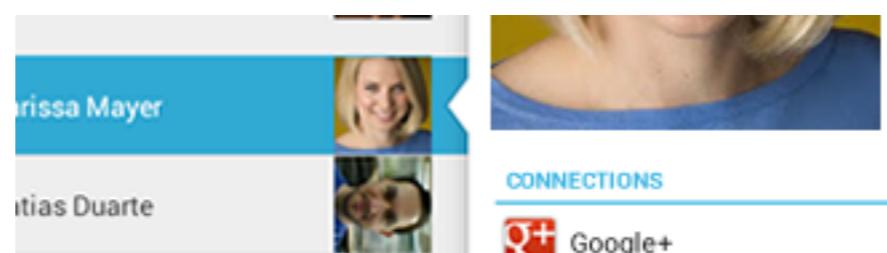
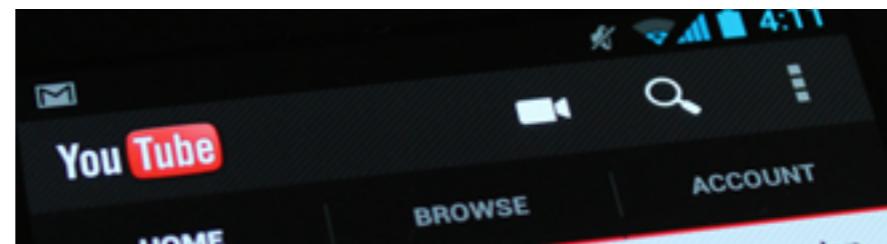
Widgets redimensionables



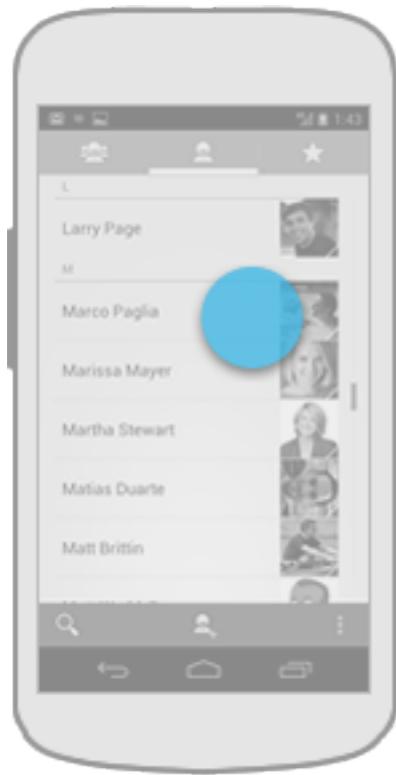
Jelly Bean - Android 4.1



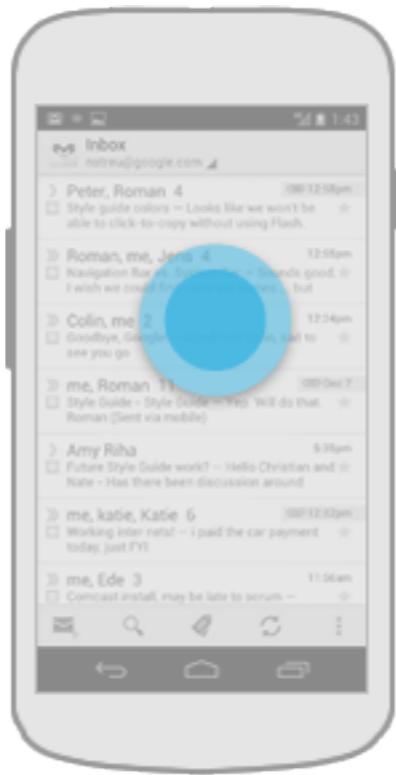
Ice Cream Sandwich - Android 4.0



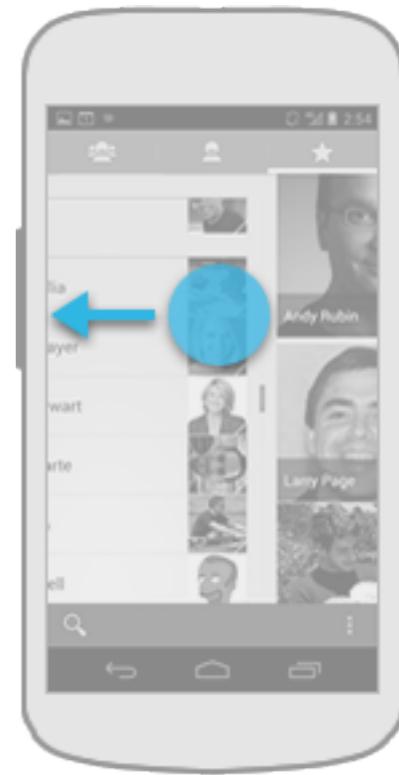
Gestures



Touch



Long press



Swipe

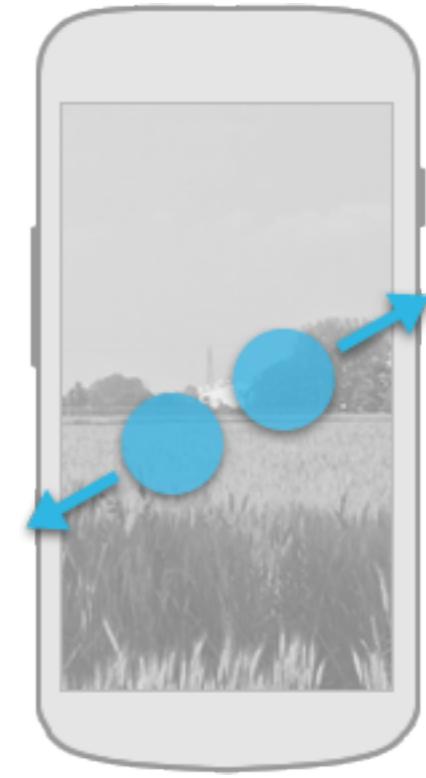
Gestures



Drag



Double touch



Pinch open



Pinch close

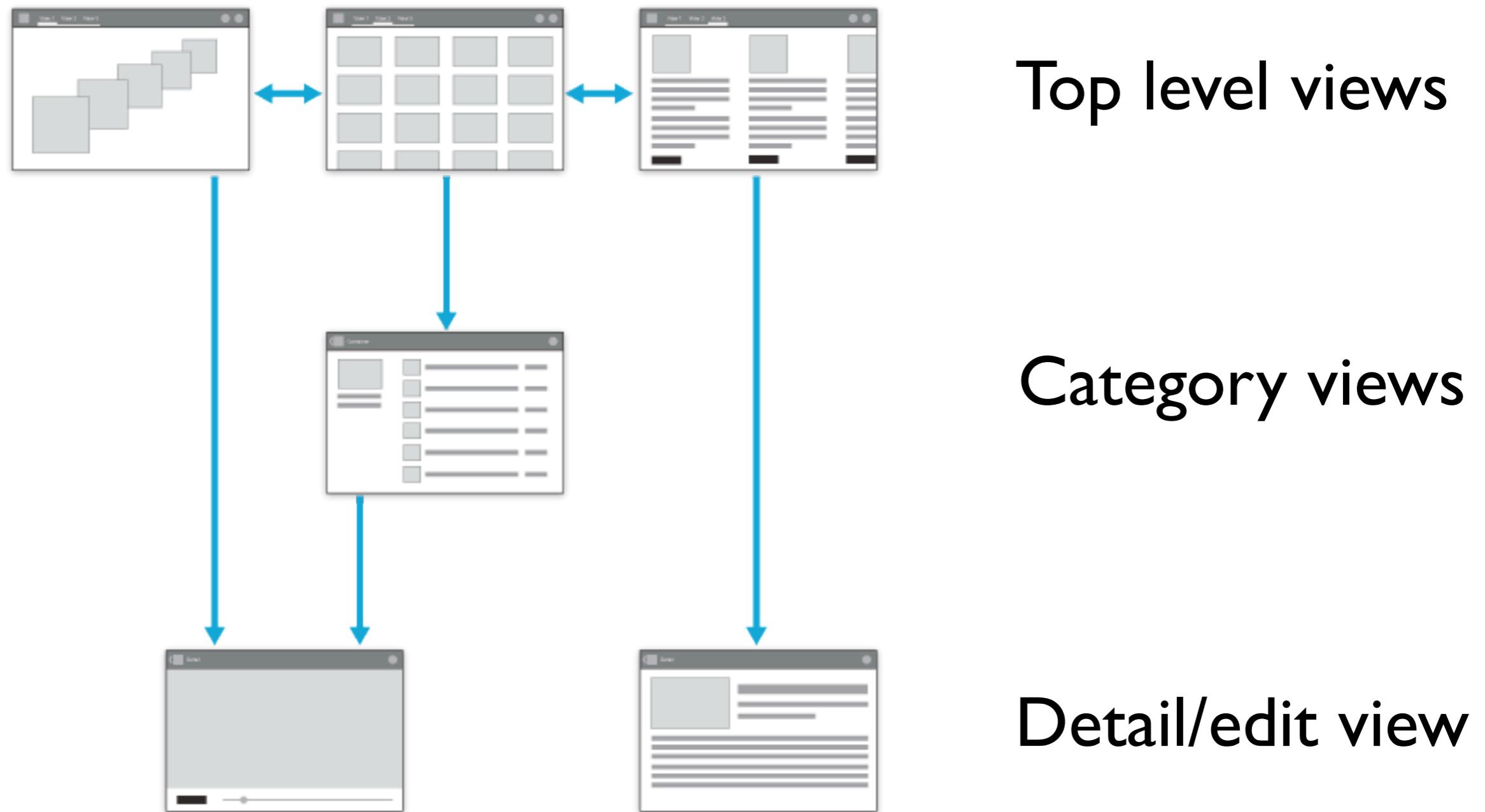
Estructura de una App

Apps como una Calculadora o
una Camara son construidas
alrededor de una simple
activity

**Apps como un Teléfono posee
diferentes activities pero sin
profunda navegación**

**Apps como Gmail o el Play
Store poseen un gran conjunto
de views con profunda
navegación**

Estructura General

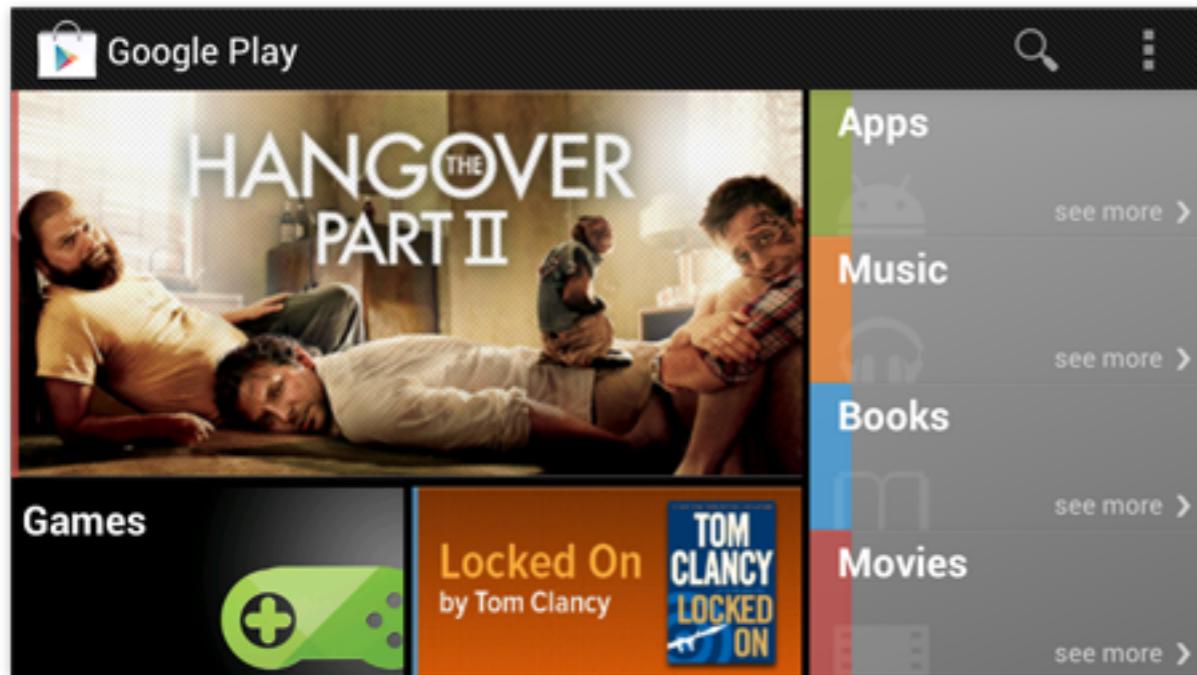


Top level views

Category views

Detail/edit view

Top Level



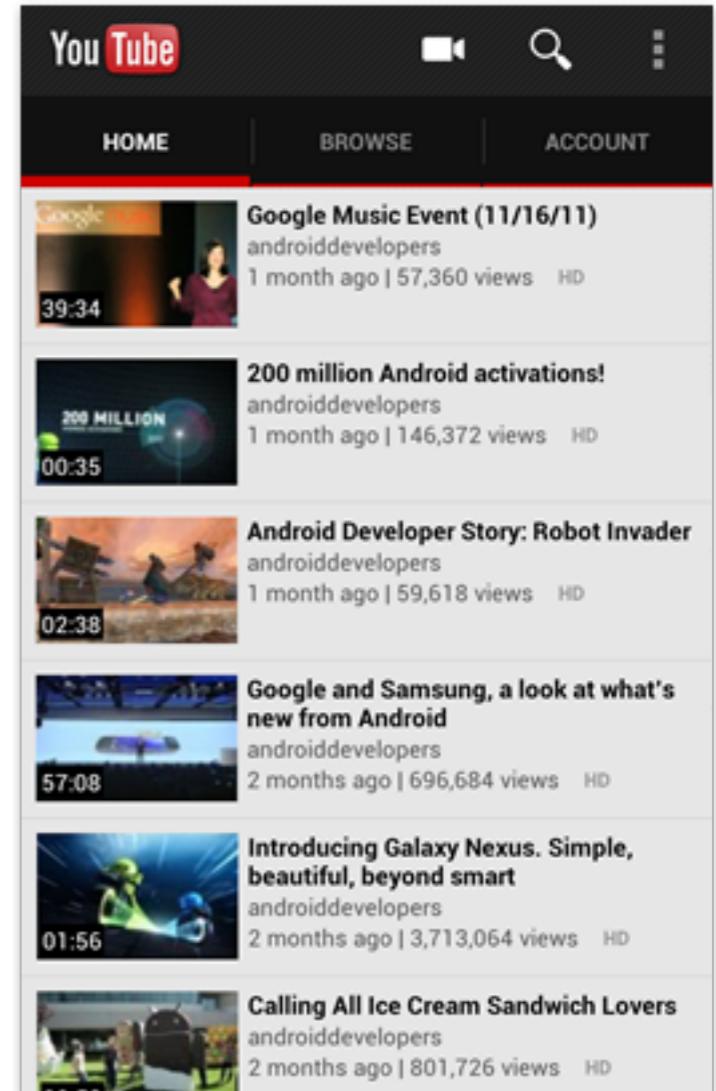
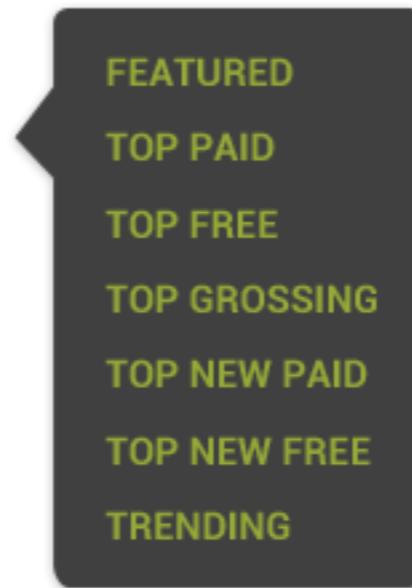
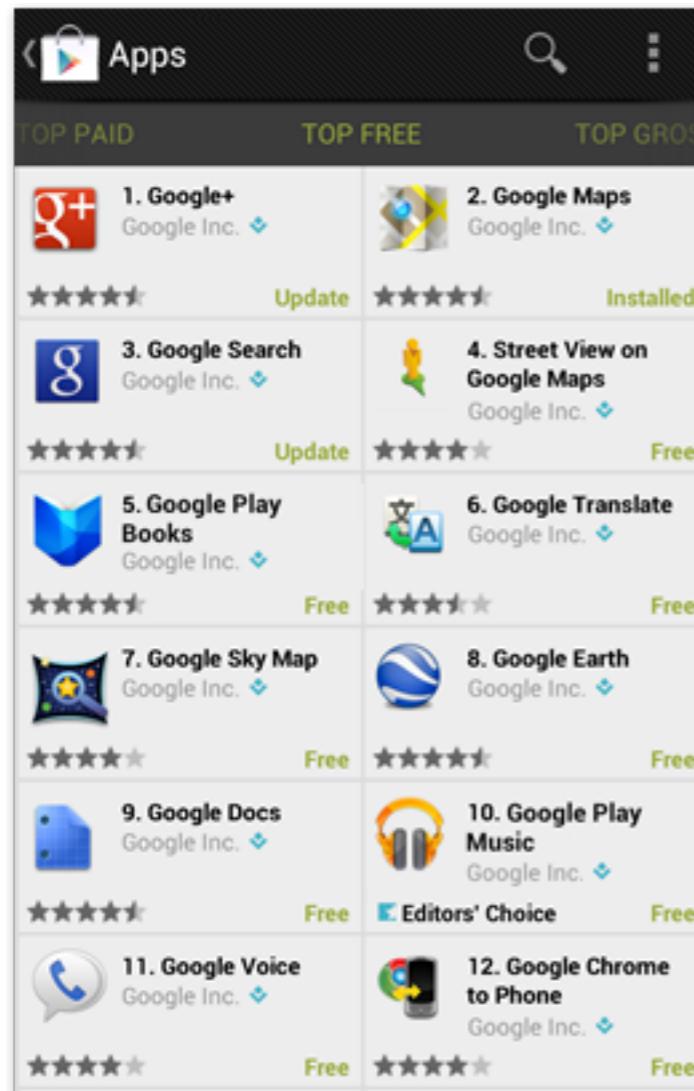
Inbox	
xyz.xyz@android.com	
▶ 2011 Holiday Gift Team	4:55pm
Chambray echo park four loko mustache	★
elit, wayfarers leggings master cleanse inci-	
Larry Page	Dec 16
Nulla brunch excepteur, irure veniam blog	★
sint squid. Consequat pariatur keytar con-	
▶ Owen, me, Amy 7	Dec 16
probably occaecat 3 wolf moon whatever	★
voluptate fap. Salvia eiusmod pitchfork, 3	
▶ Taddeo	Dec 16
Dreamcatcher artisan biodiesel, commodo	★
gluten-free salvia helvetica aliquip photo	
Hiroshi Lockheimer	Dec 16
Brunch cred wolf art party, you probably	★
haven't heard of them et officia mustache	
▶ Amy, Kenzo, Zi 3	Dec 16
Food truck reprehenderit elit enim, 8-bit	★
single-origin coffee butcher ethical gluten-	
▶ me, Roman 5	Dec 16
Cred fixie culpa, hoodie adipisicing skate-	★

Inbox	
xyz.xyz@android.com	
▶ RECENT	1:55pm
Ch	★
eli	
Drafts	8 Dec 16
La	★
Lu	
Sent	Dec 16
sir	★
Starred	
O	Dec 16
▶ pr	★
vo	
Show all labels	
▶ Taddeo	Dec 16
Dreamcatcher artisan biodiesel, commodo	★
gluten-free salvia helvetica aliquip photo	
Hiroshi Lockheimer	Dec 16
Brunch cred wolf art party, you probably	★
haven't heard of them et officia mustache	
▶ Amy, Kenzo, Zi 3	Dec 16
Food truck reprehenderit elit enim, 8-bit	★
single-origin coffee butcher ethical gluten-	
▶ me, Roman 5	Dec 16
Cred fixie culpa, hoodie adipisicing skate-	★

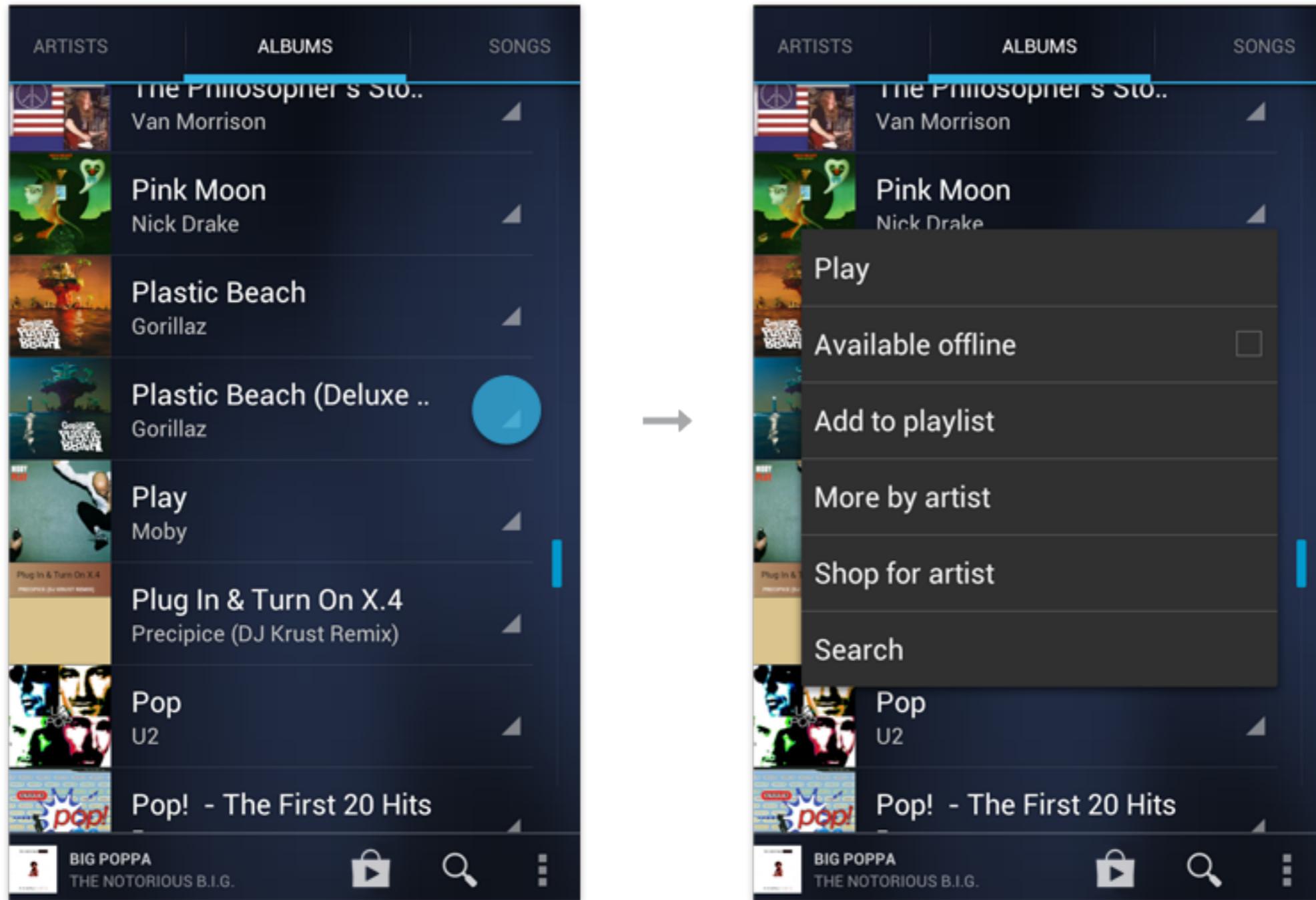
Top Level



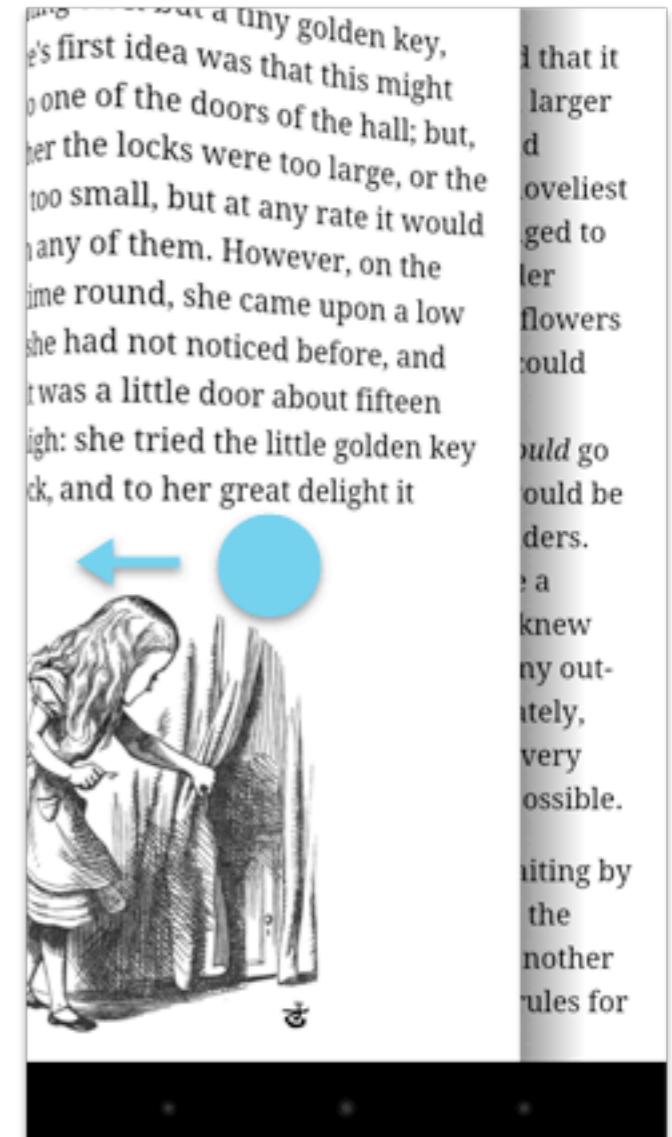
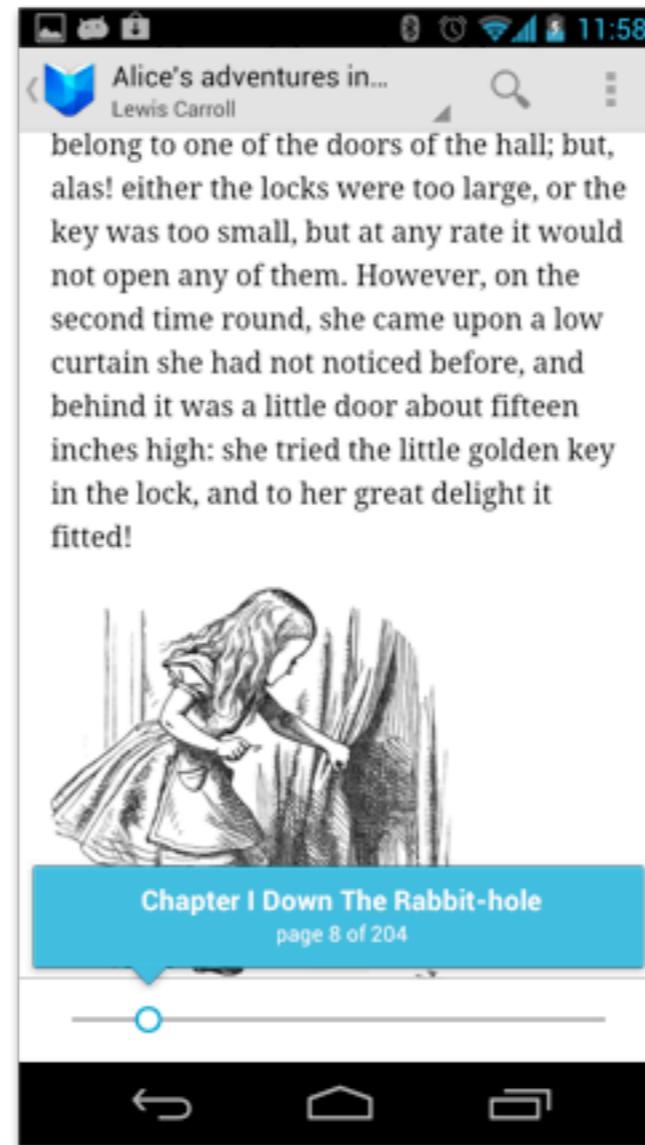
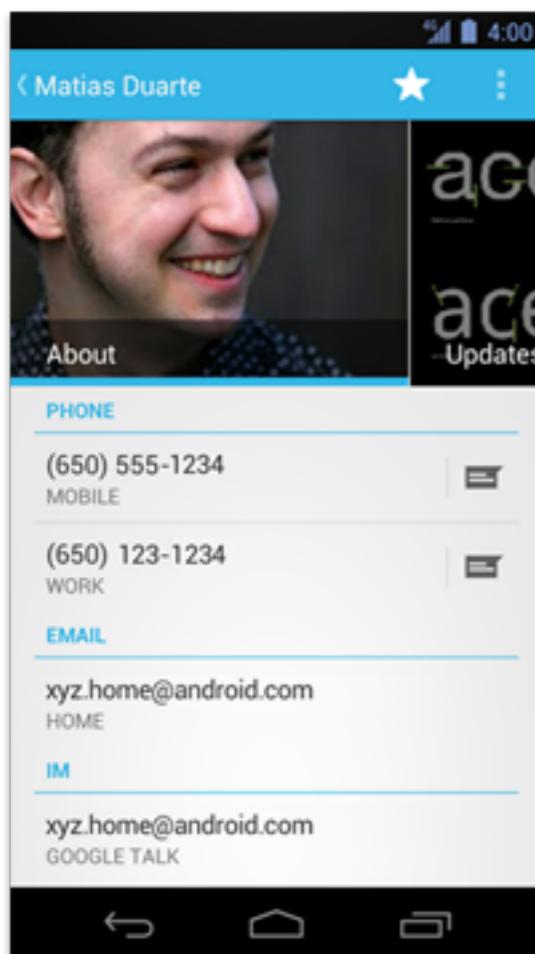
Categorías



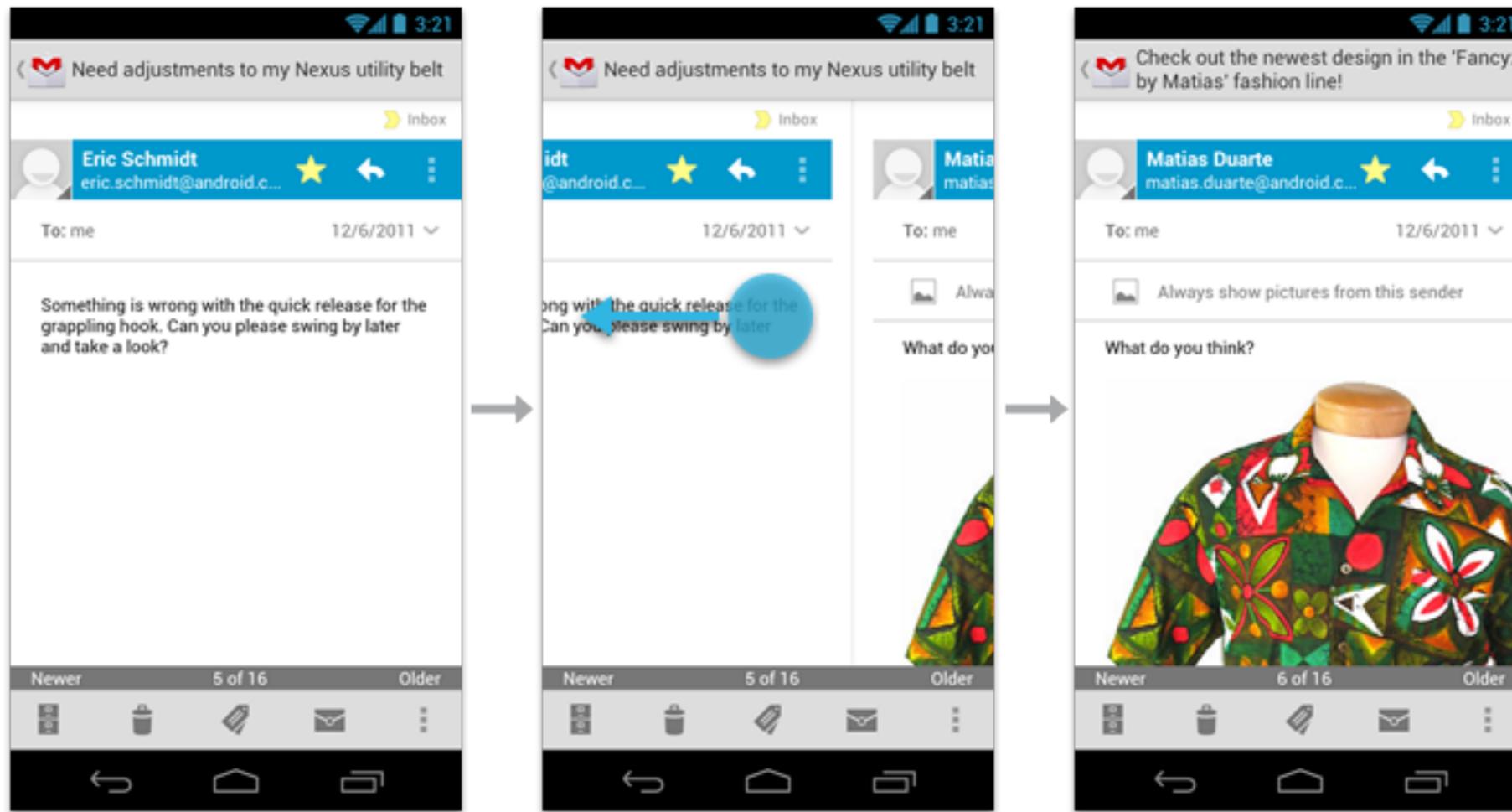
Categorías



Detail



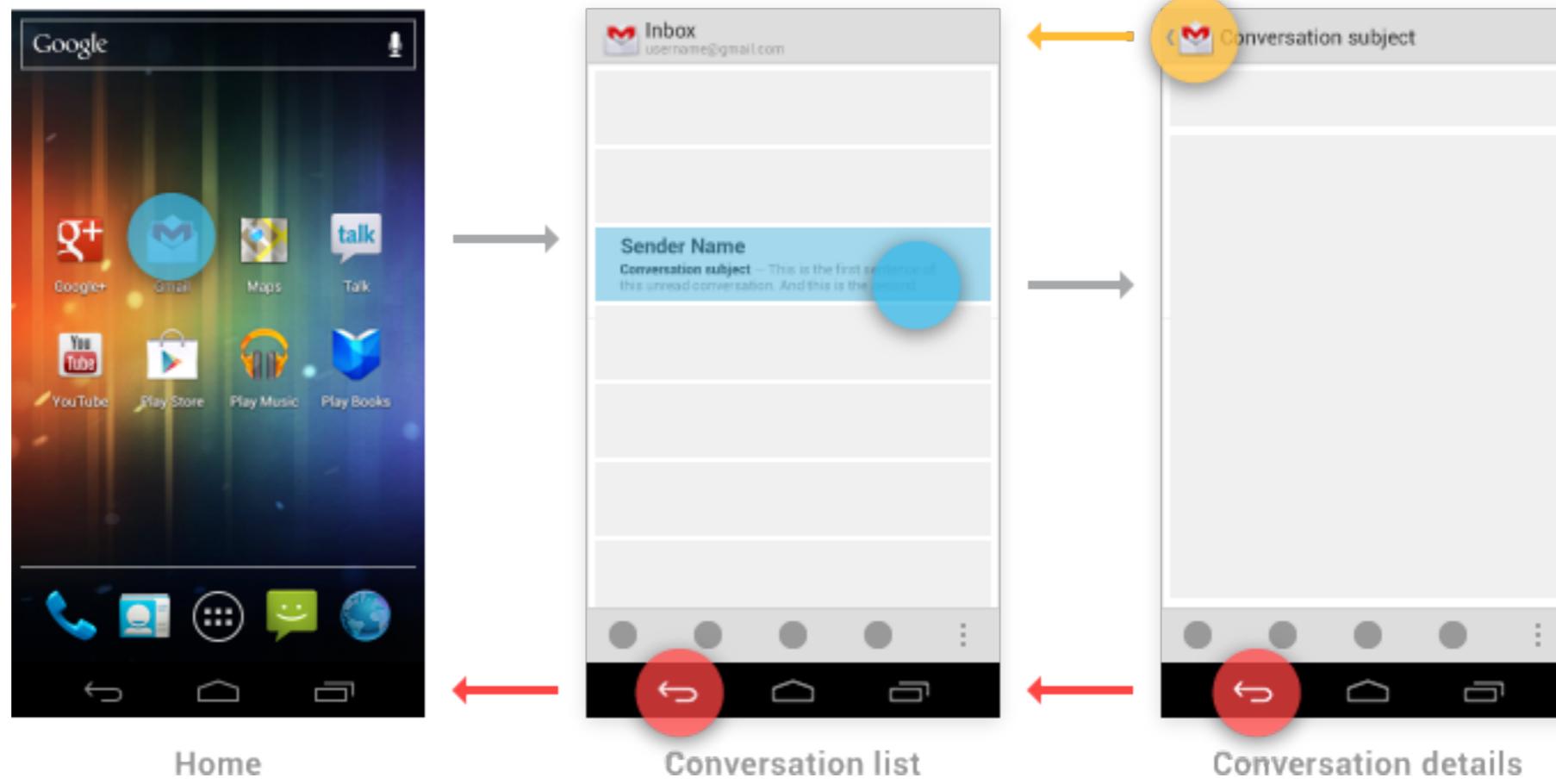
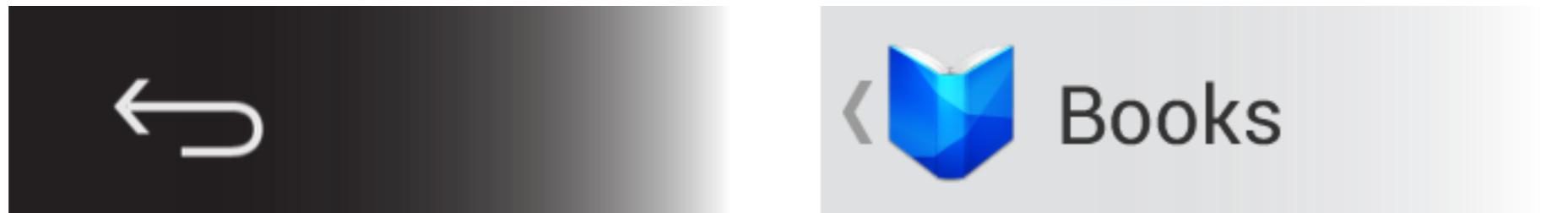
Detail



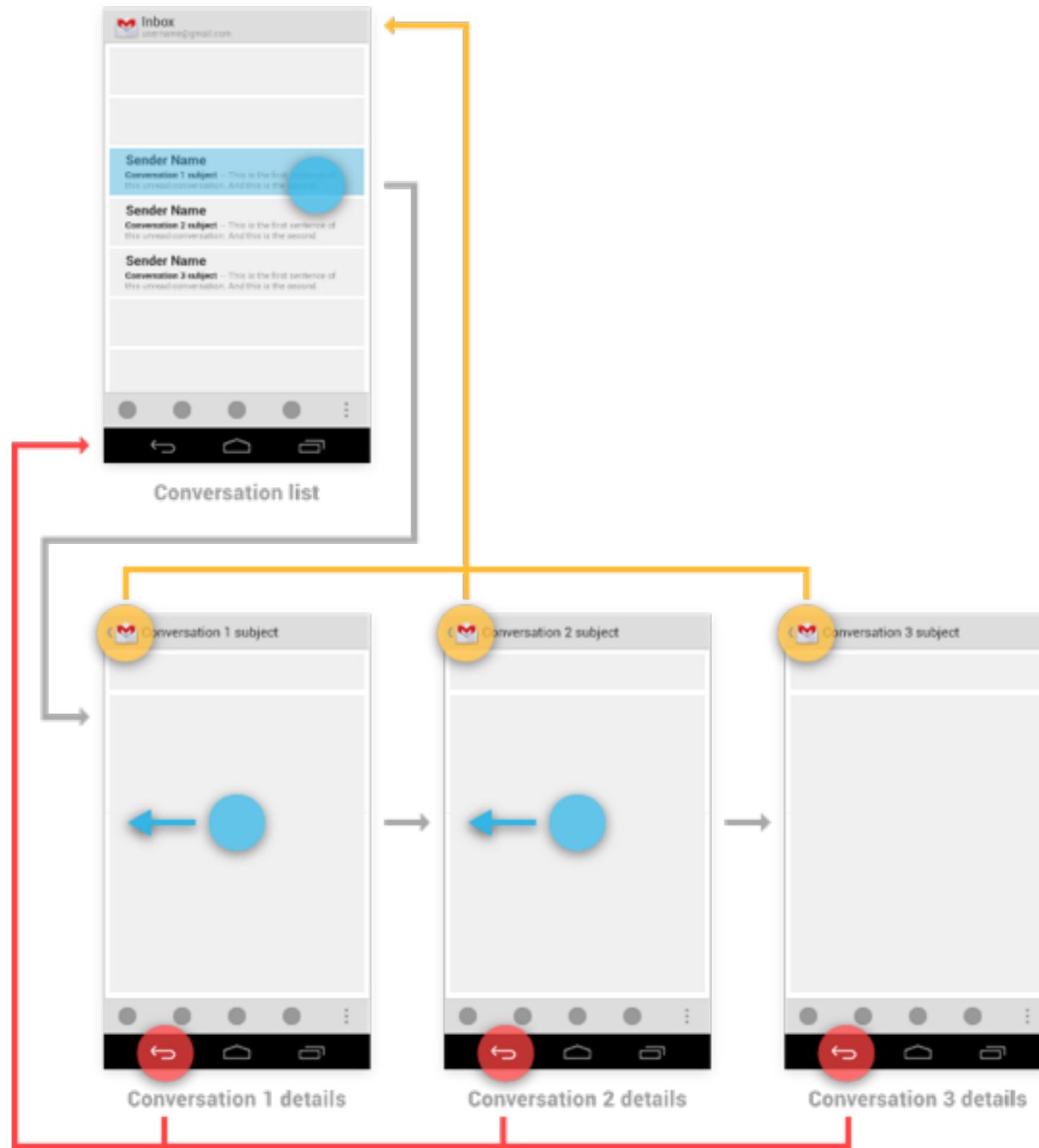
Detail



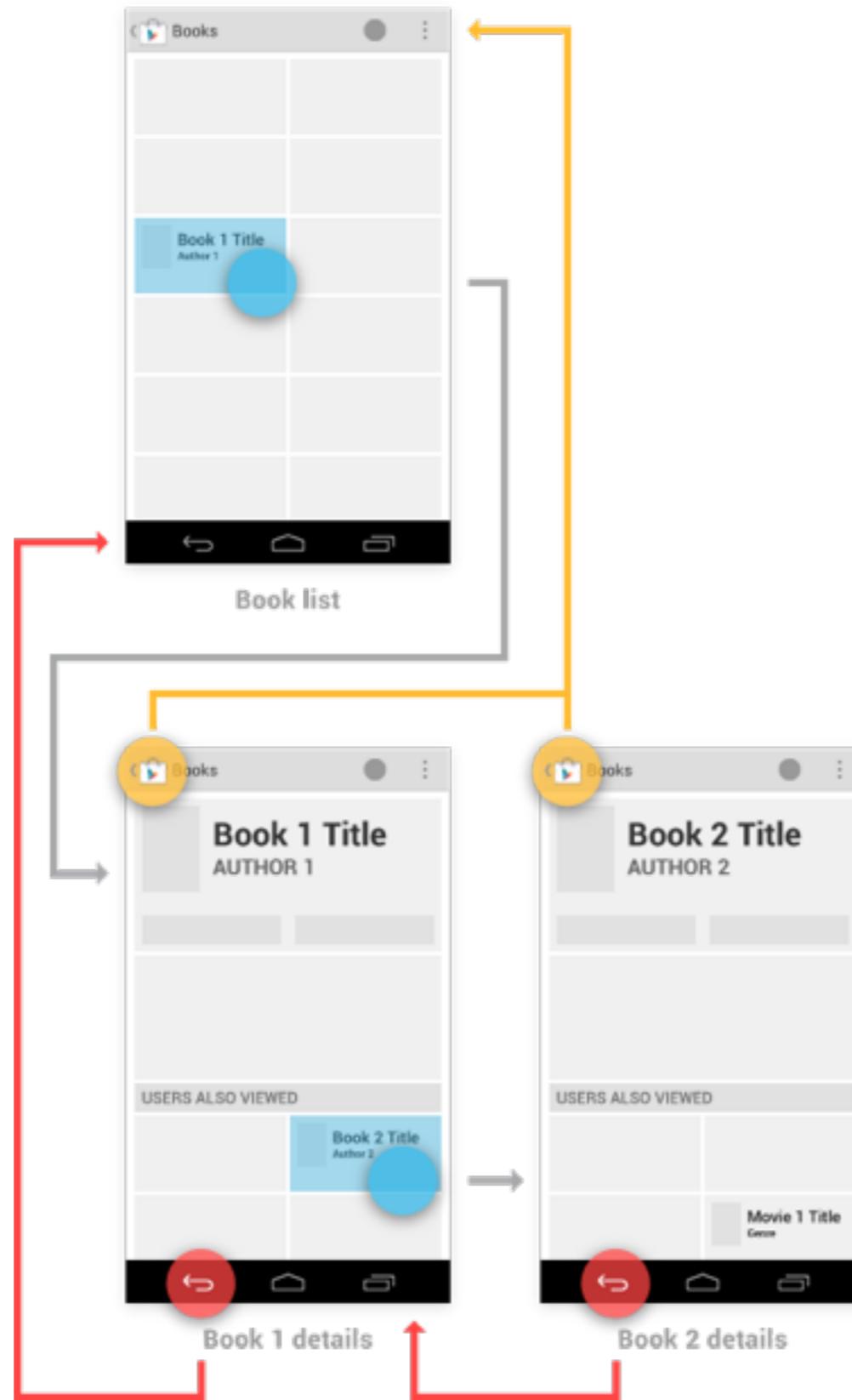
Navegación con Back y Up



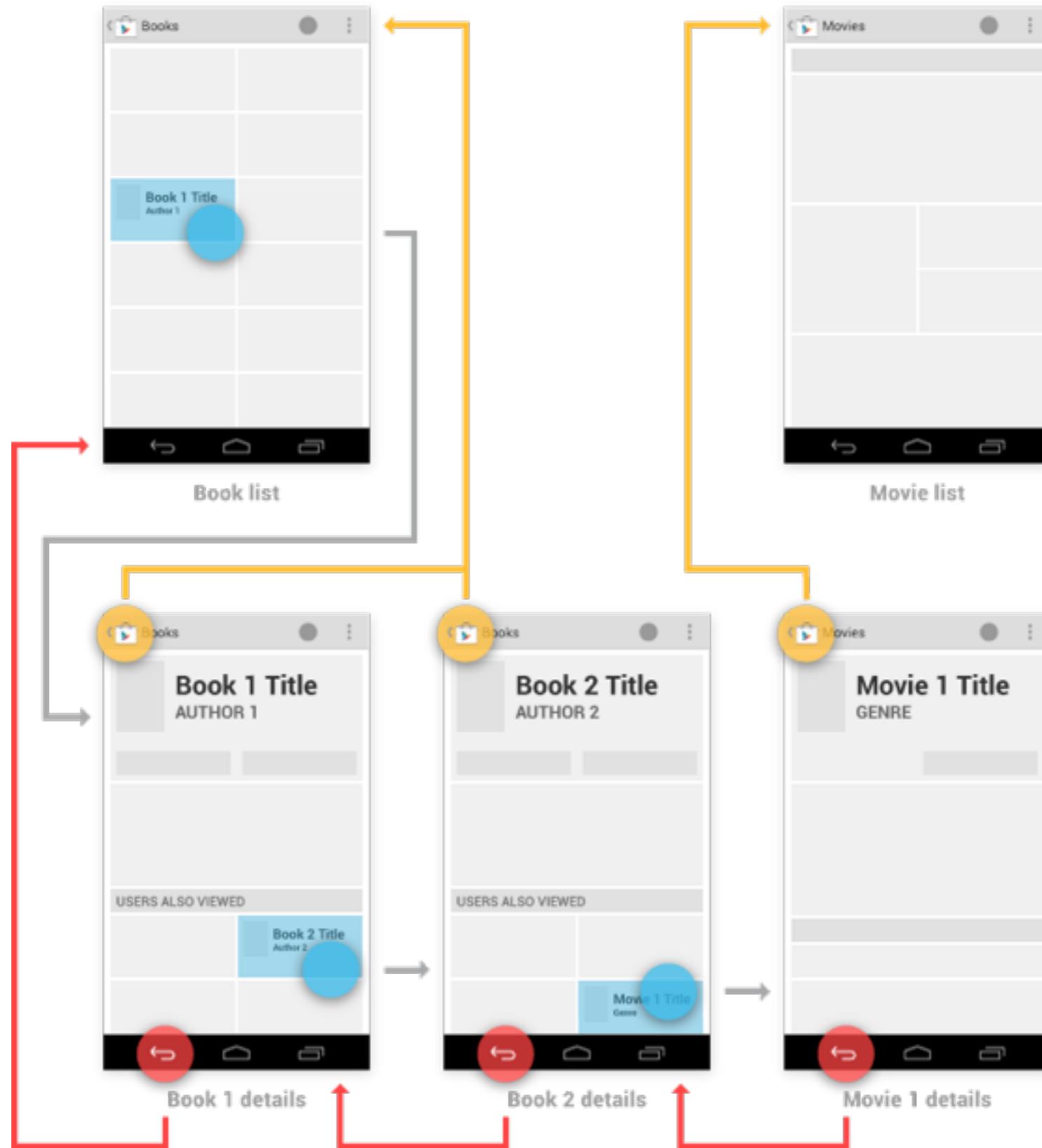
Navegación al interior de tu App



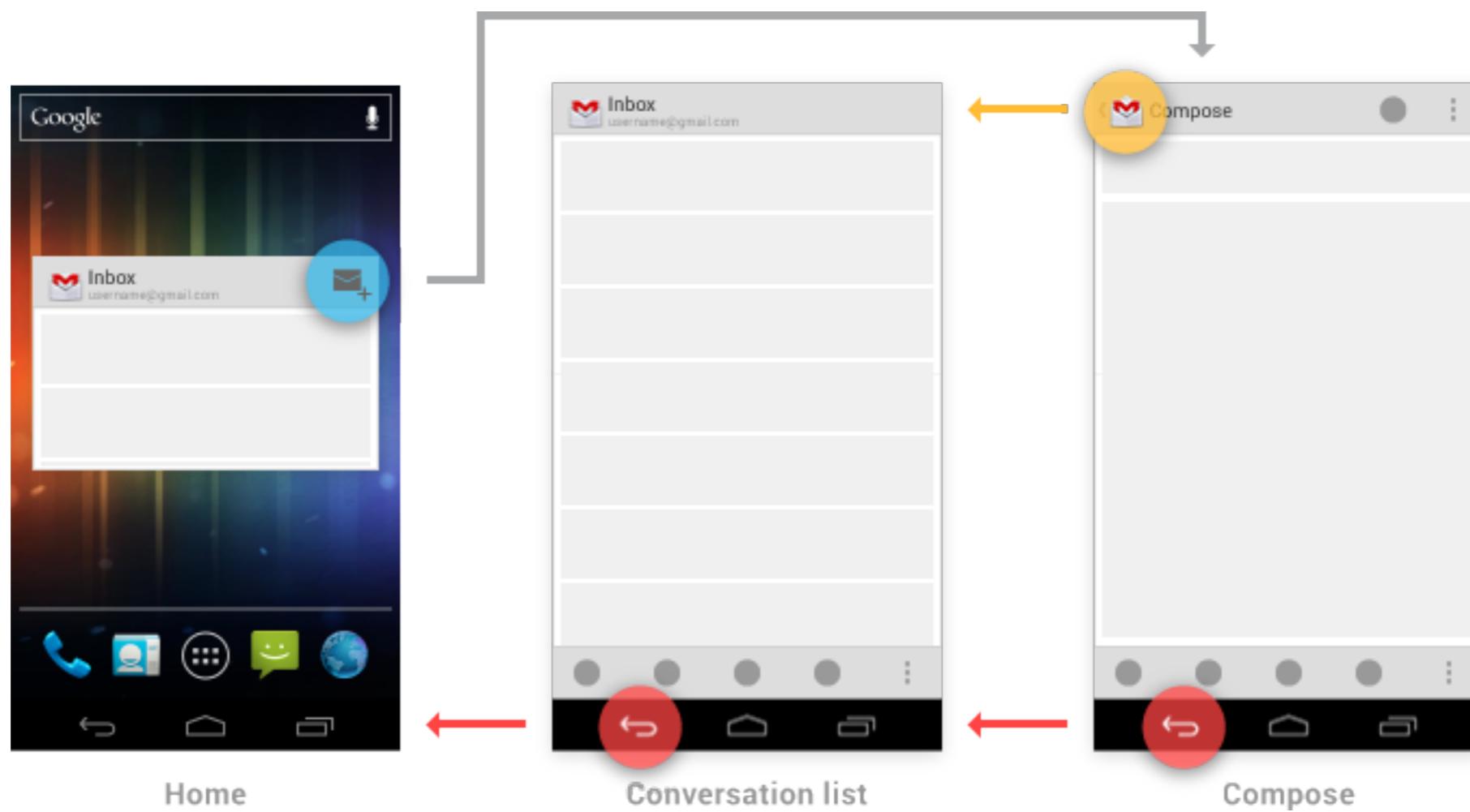
Navegación al interior de tu App



Navegación al interior de tu App



Navegación al interior de tu App

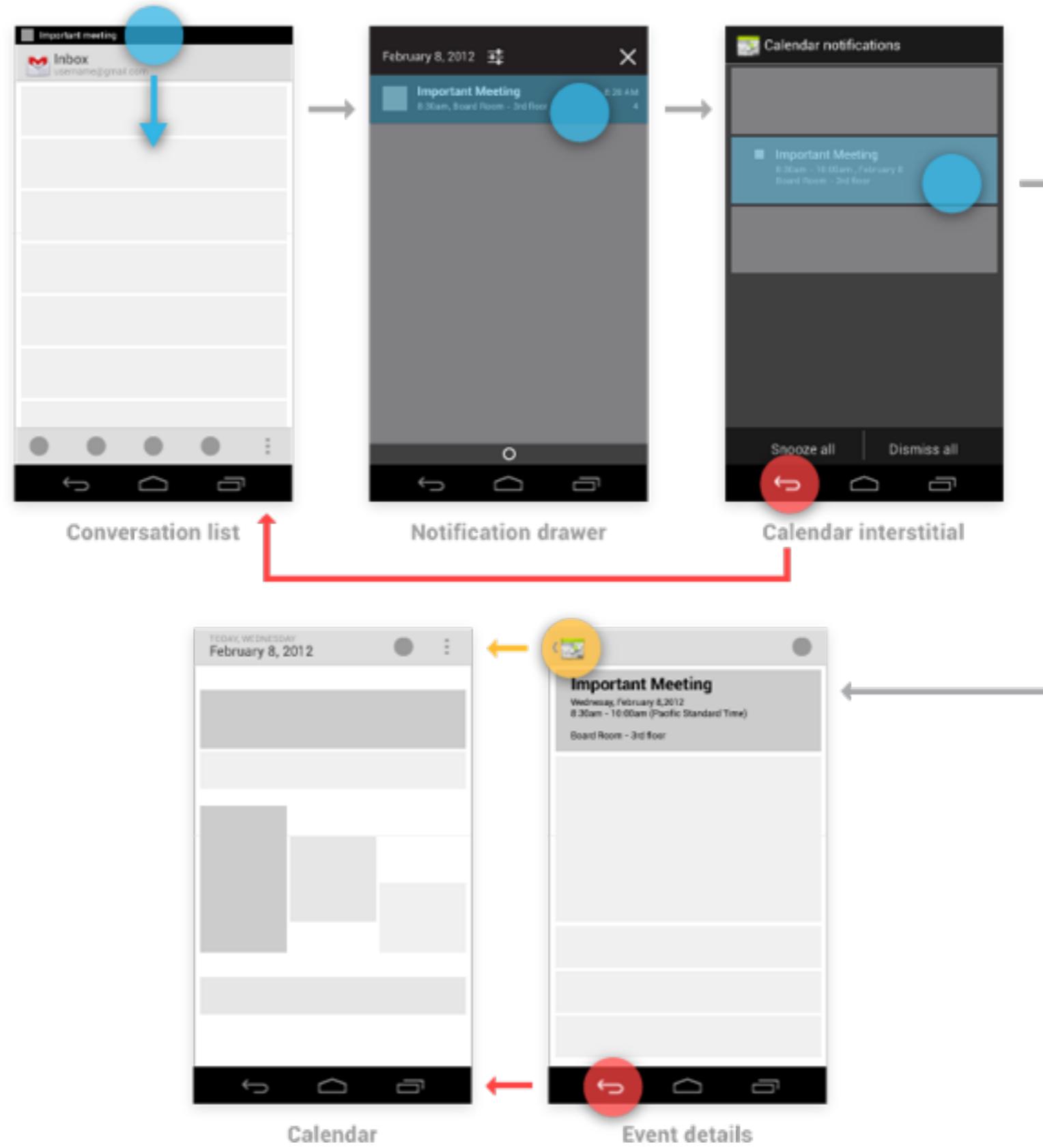


Home

Conversation list

Compose

Navegación al interior de tu App



Navegación al interior de tu App



Navegación entre Aplicaciones

Un **Activity** es un componente de la aplicación que representa un screen de información y todas las acciones que el usuario puede ejecutar.

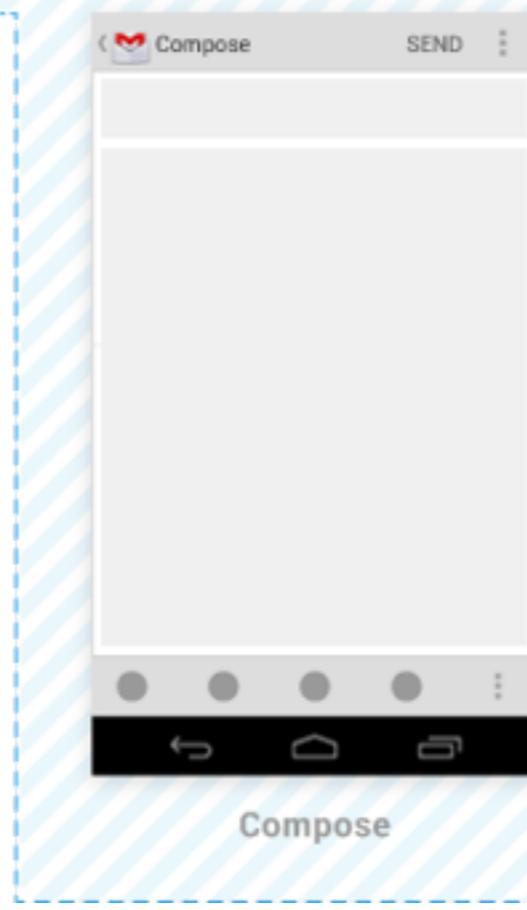
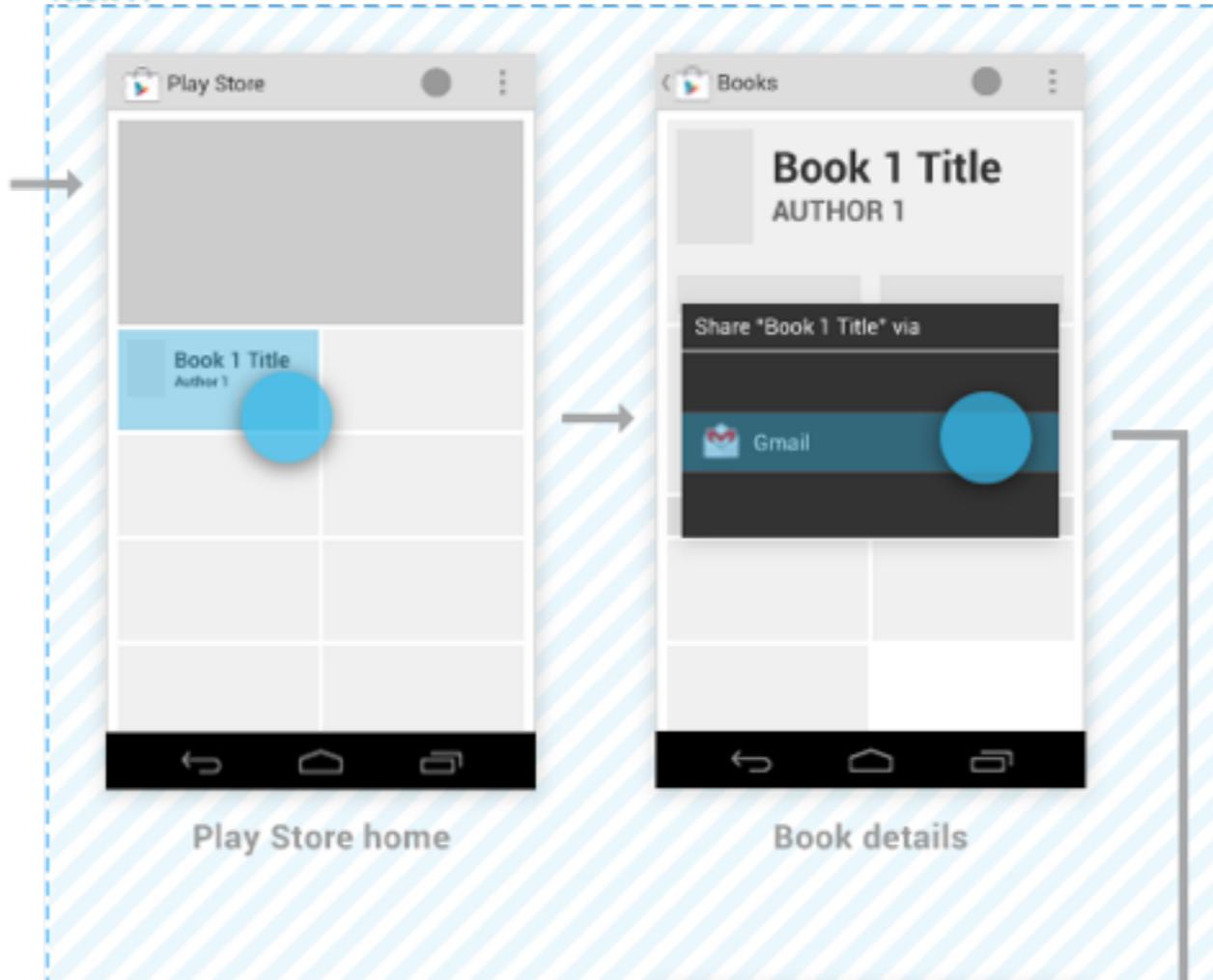
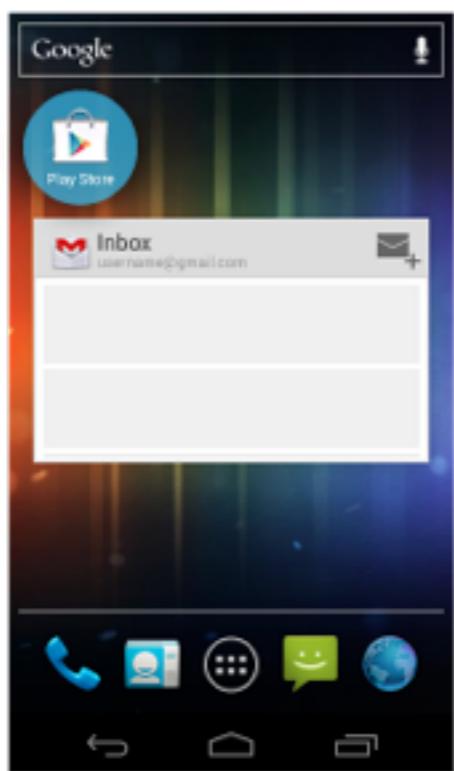
Navegación entre Aplicaciones

Un **Task** es una secuencia de activities que un usuario sigue para conseguir un objetivo. Una simple tarea puede usar activities de una sola app o puede dibujar activities de diferentes apps.

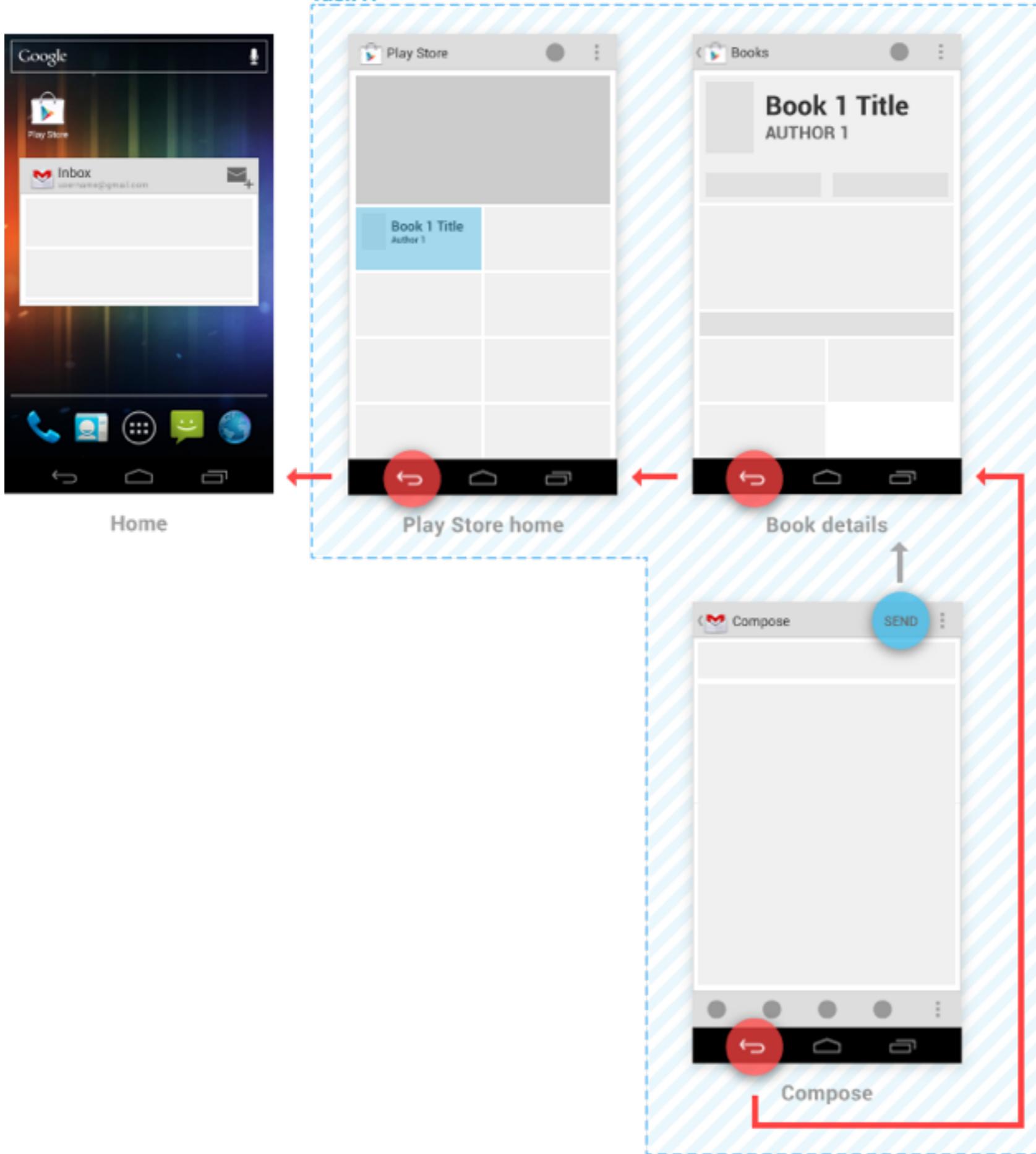
Navegación entre Aplicaciones

Un **Intent** es un mecanismo para que una aplicación señale que necesita la asistencia de otra app para ejecutar una acción.

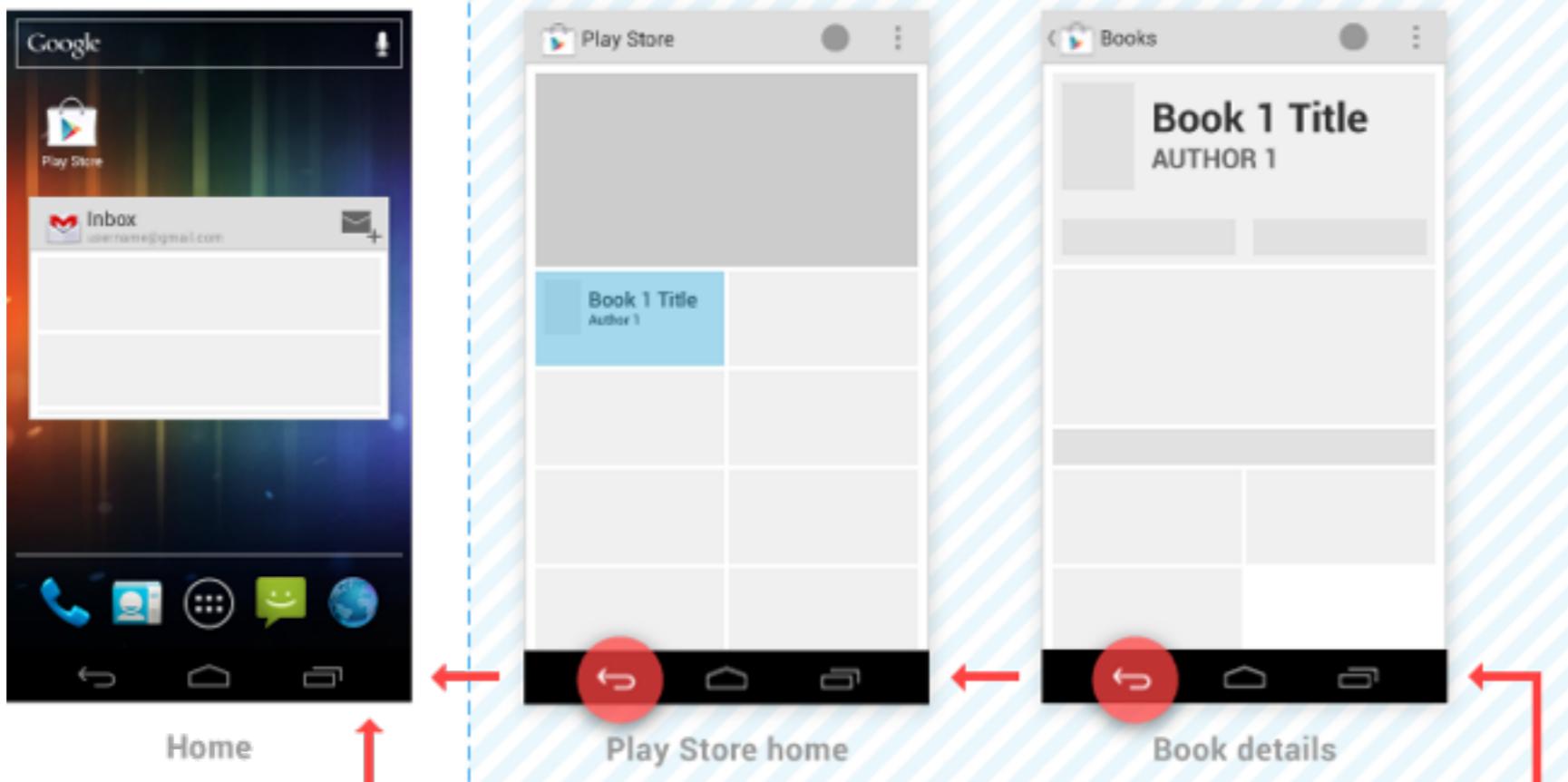
Task A



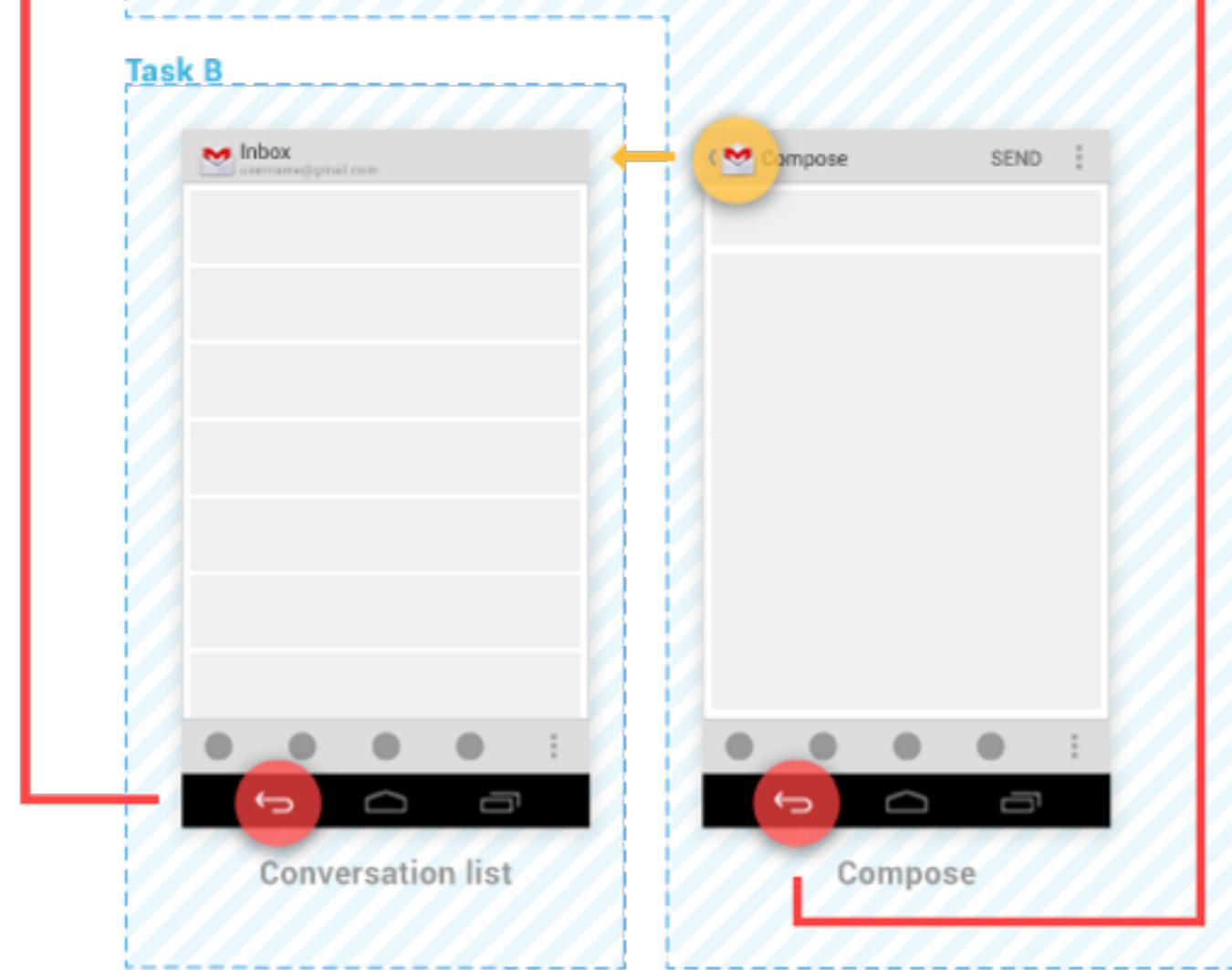
Task A



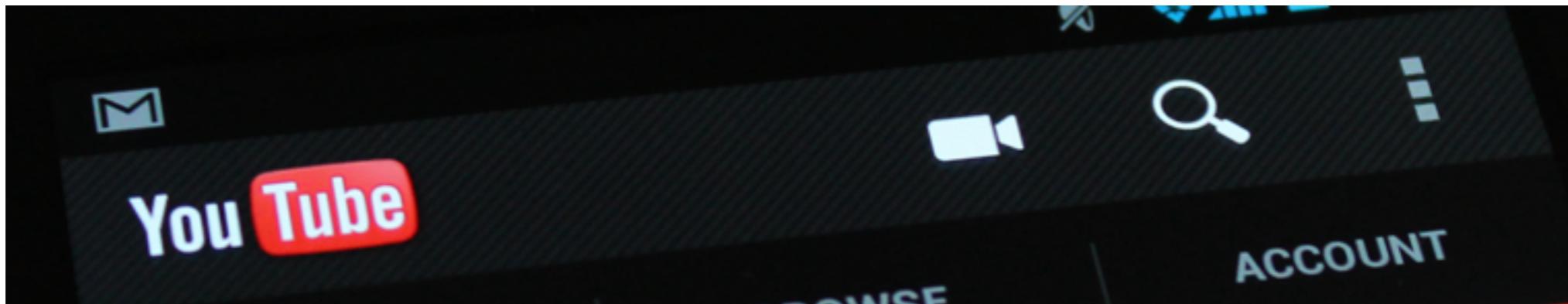
Task A



Task B



Action Bar



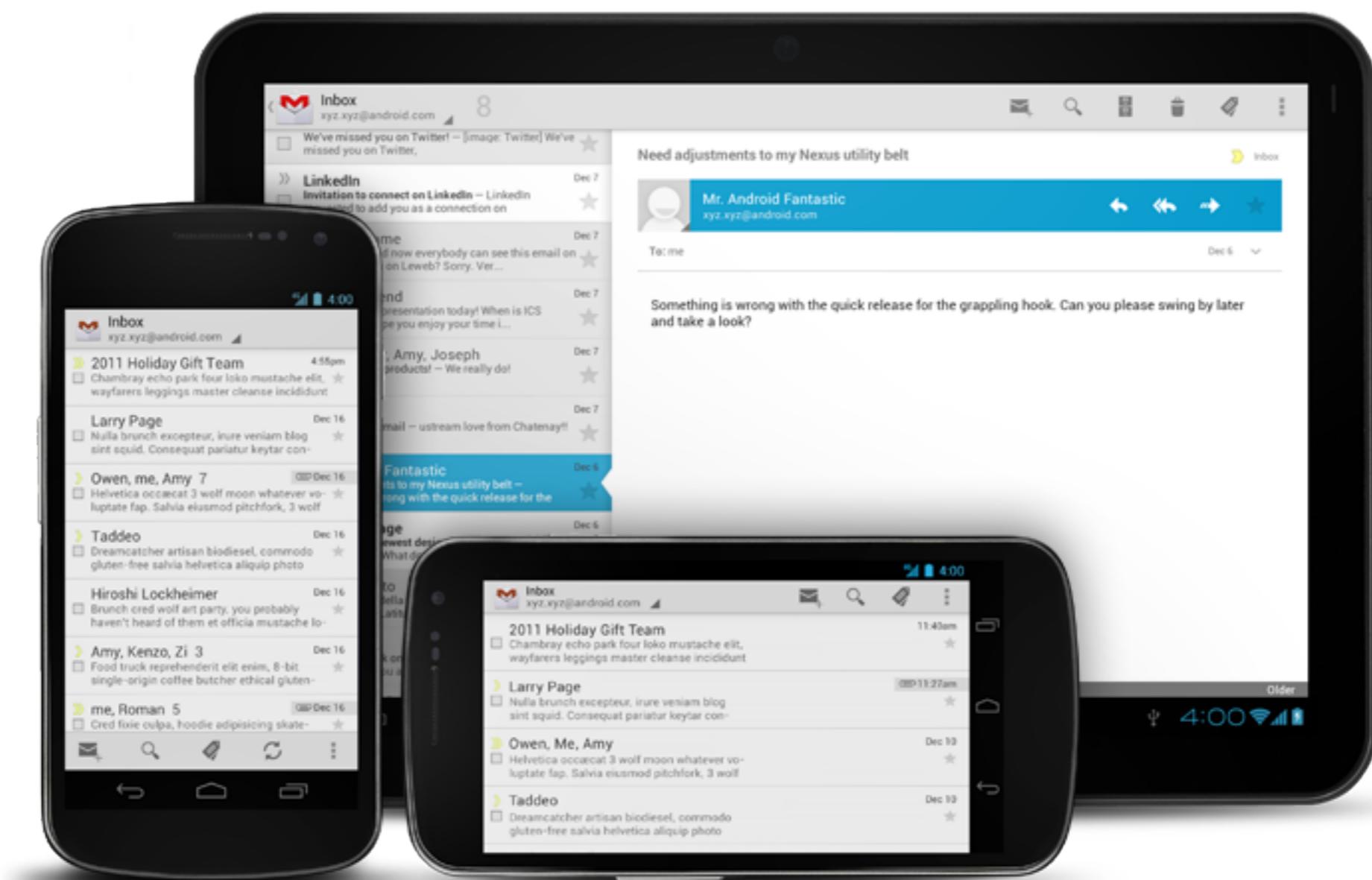
App icon

View Control

Action Buttons

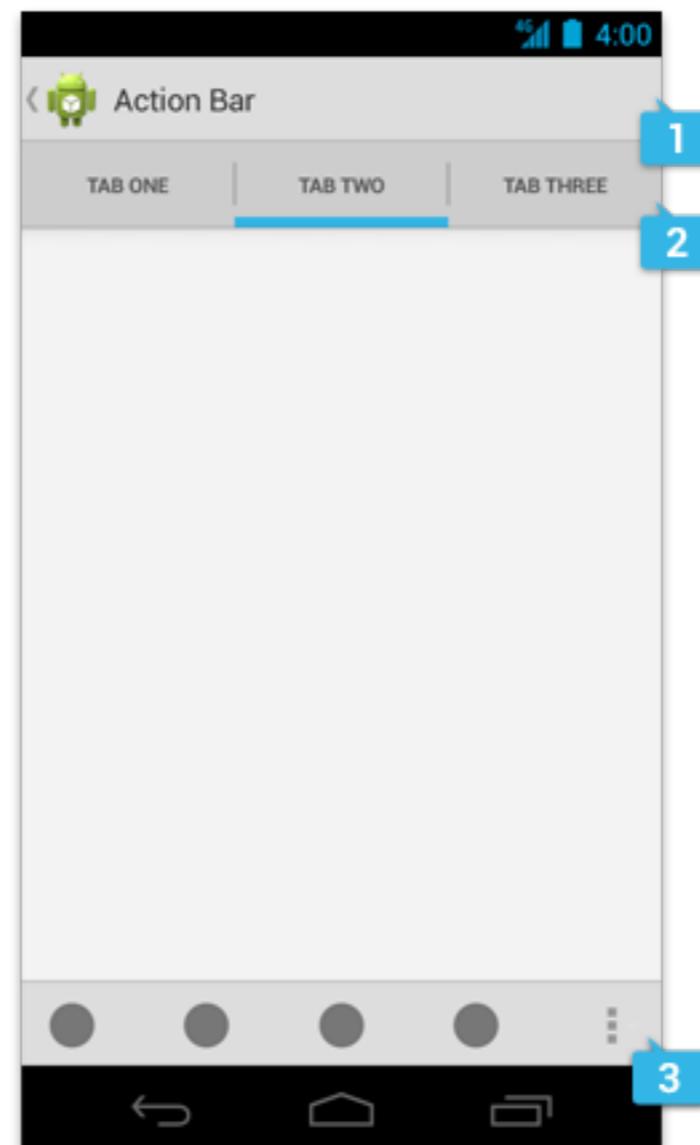
Action Overflow

Manejar Rotación para diferentes Screens



Consideraciones de Layout para Split action bars

I. Main action bar



II. Top bar

III. Bottom bar

Contextual Action Bars

The image consists of two side-by-side screenshots demonstrating contextual action bars.

Left Screenshot (Bacon Ipsum Generator):

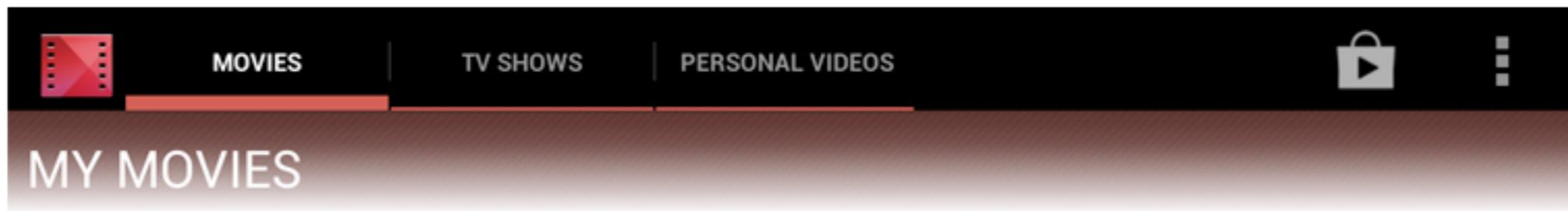
- Top Bar:** A dark blue bar with a checkmark icon, a "SELECT ALL" button, a copy icon, and a more icon.
- Header:** "Bacon Ipsum" with a pig icon and "A Meatier Lorem Ipsum Generator".
- Content:** Text generated by the Ipsum generator, including:
 - ribs eye salami shoulder, tail ham frankfurter lard. Filet mignon short loin meatloaf chuck, venison capicola rump shank pig. Prosciutto meatloaf boudin navel, meatball pork loin tongue bresaola chuck. Turkey jerky pork belly shankle, flank hamburger venison boudin pork chop drumstick turducken ball tip sausage. Pork flank venison, chicken chuck sirloin kielbasa. Venison pig short ribs meatloaf chuck kielbasa. Filet mignon drumstick ribeye capicola leberkäse jerky, tail bacon tongue.
 - Jerky meatball filet mignon swine jowl. T-bone cow tail, ribeye jowl shankle frankfurter **chicken** pork belly shoulder meatloaf bikerage, ball tip shoulder jowl on tip chuck meatball turkey ham hock pastrami, flankfurter swine prosciutto rump. Biltong, short loin bresaola fatback **beef** boudin spare ribs t-bone tail mignon, tenderloin tri-tip meatball drumstick beef ribs ball tip turducken strip steak capicola tongue. Pancetta t-bone chicken venison sausage pork loin fatback short loin pork. Chuck beef meat kielbasa, short ribs pig jowl bacon tongue jerky sirloin.
 - Prosciutto brisket pastrami salami. Frankfurter shank beef short loin pork, ball tip t-bone salami flank meatloaf venison capicola short ribs tenderloin shankle. Pork short loin tail chuck, jerky pork chop ribeye pastrami. Ham t-bone tongue turkey pig, filet mignon chuck. Meatloaf strip steak beef andouille, filet mignon spare ribs jerky tenderloin ewe. Meatloaf pork belly pork chop boudin drumstick sausage.
 - Tail brisket short loin, pork belly chuck corned beef bresaola strip steak shark beef drumstick shoulder pancetta rump filet mignon. Venison brisket pastrami filet mignon biltong. Ground round hamburger bacon t-bone, pork short loin strip steak shoulder pastrami prosciutto biltong. Ball tip capicola short ribs, beef tenderloin rump.
- Bottom Bar:** A black bar with navigation icons: back, home, recent, and menu.

Right Screenshot (Contact List):

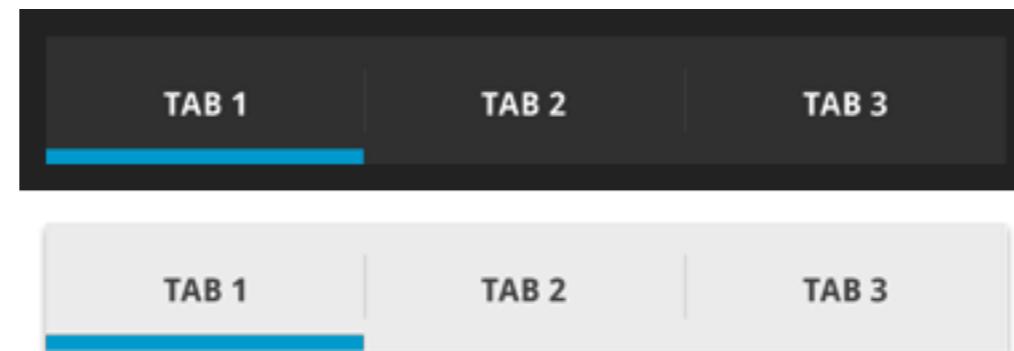
- Top Bar:** A light blue bar with a checkmark icon and "2 selected".
- List:** A list of contacts with their names, dates, and a star icon.
 - » 2011 Holiday Gift Team 4:55pm
Chambray echo park four loko mustache elit, ★ wayfarers leggings master cleanse incididunt
 - » Larry Page Dec 16
Nulla brunch excepteur, irure veniam blog sint squid. Consequat pariatur keytar con-
 - » Owen, me, Amy 7 Dec 16
Helvetica occaecat 3 wolf moon whatever voluptate fap. Salvia eiusmod pitchfork, 3 wolf
 - » Taddeo Dec 16
Dreamcatcher artisan biodiesel, commodo gluten-free salvia helvetica aliquip photo
 - » Hiroshi Lockheimer Dec 16
Brunch cred wolf art party, you probably haven't heard of them et officia mustache lo-
 - » Amy, Kenzo, Zi 3 Dec 16
Food truck reprehenderit elit enim, 8-bit single-origin coffee butcher ethical gluten-
 - » me, Roman 5 Dec 16
Cred fixie culpa, hoodie adipisicing skate-
- Bottom Bar:** A black bar with a toolbar containing icons for file operations: copy, cut, paste, etc.

Control Views

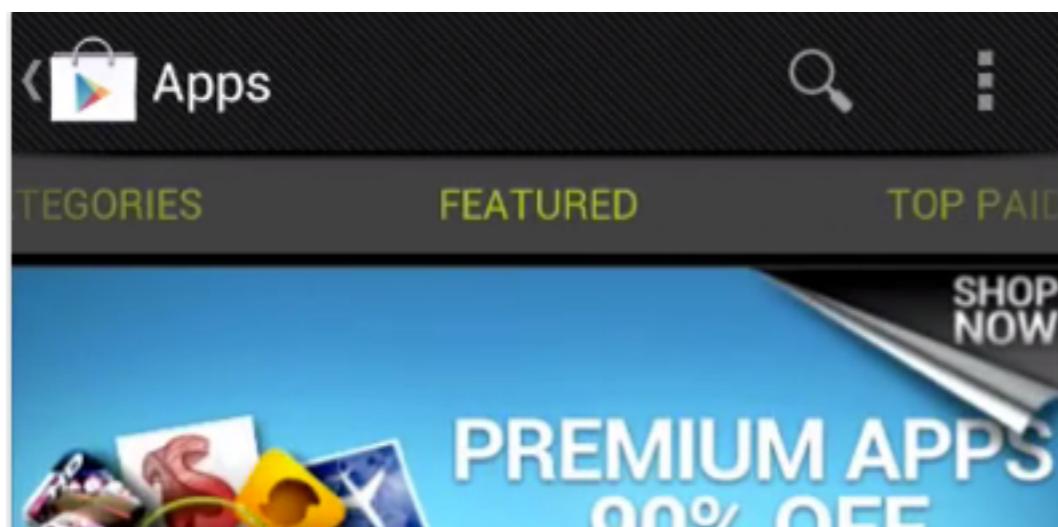
Tabs



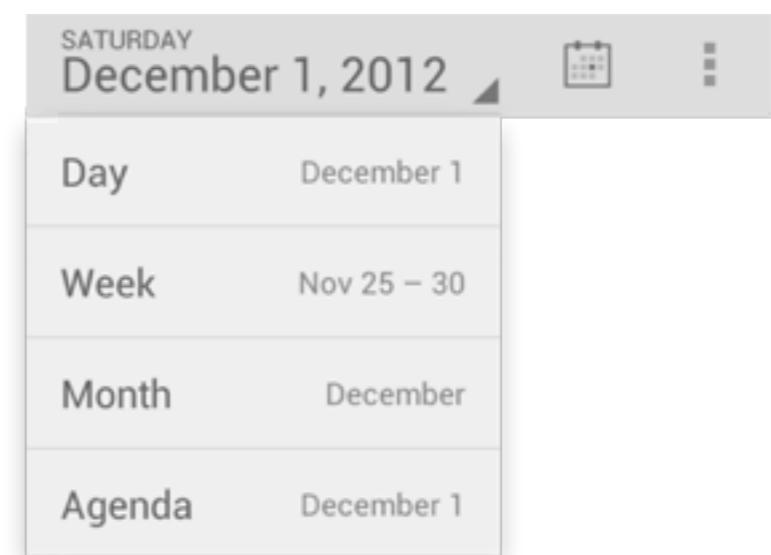
Fixed tabs



Scollable tabs

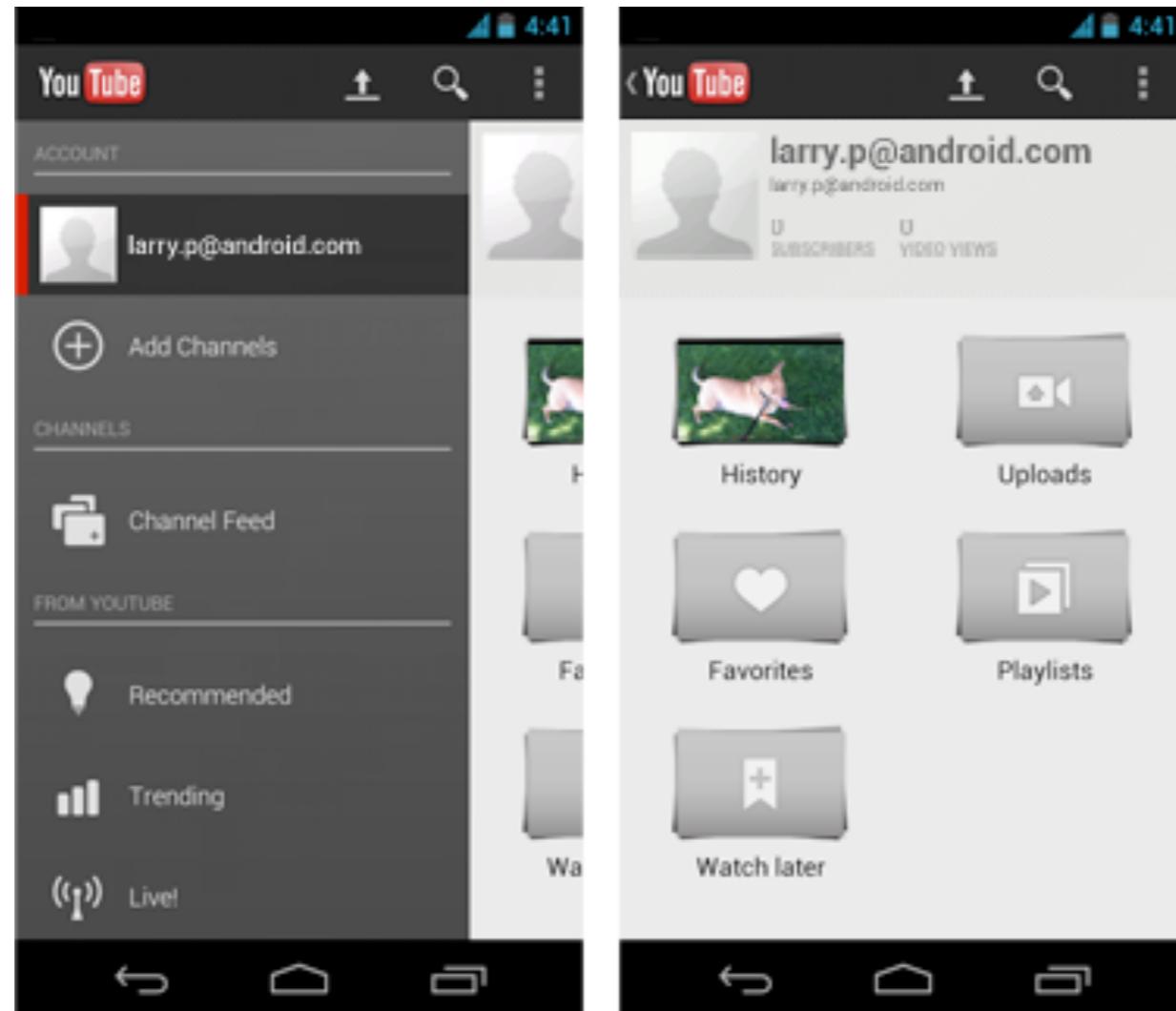


Spinners



Tabs

drawers

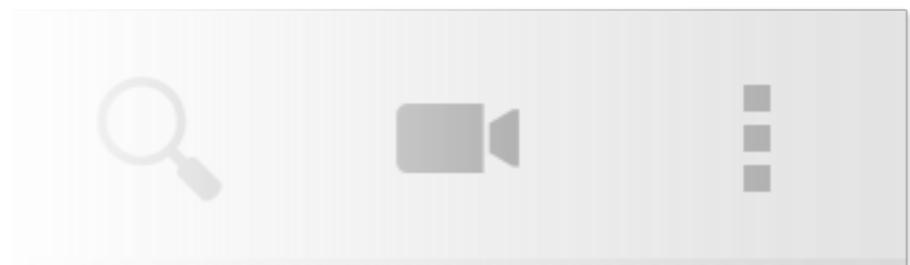


Action Buttons

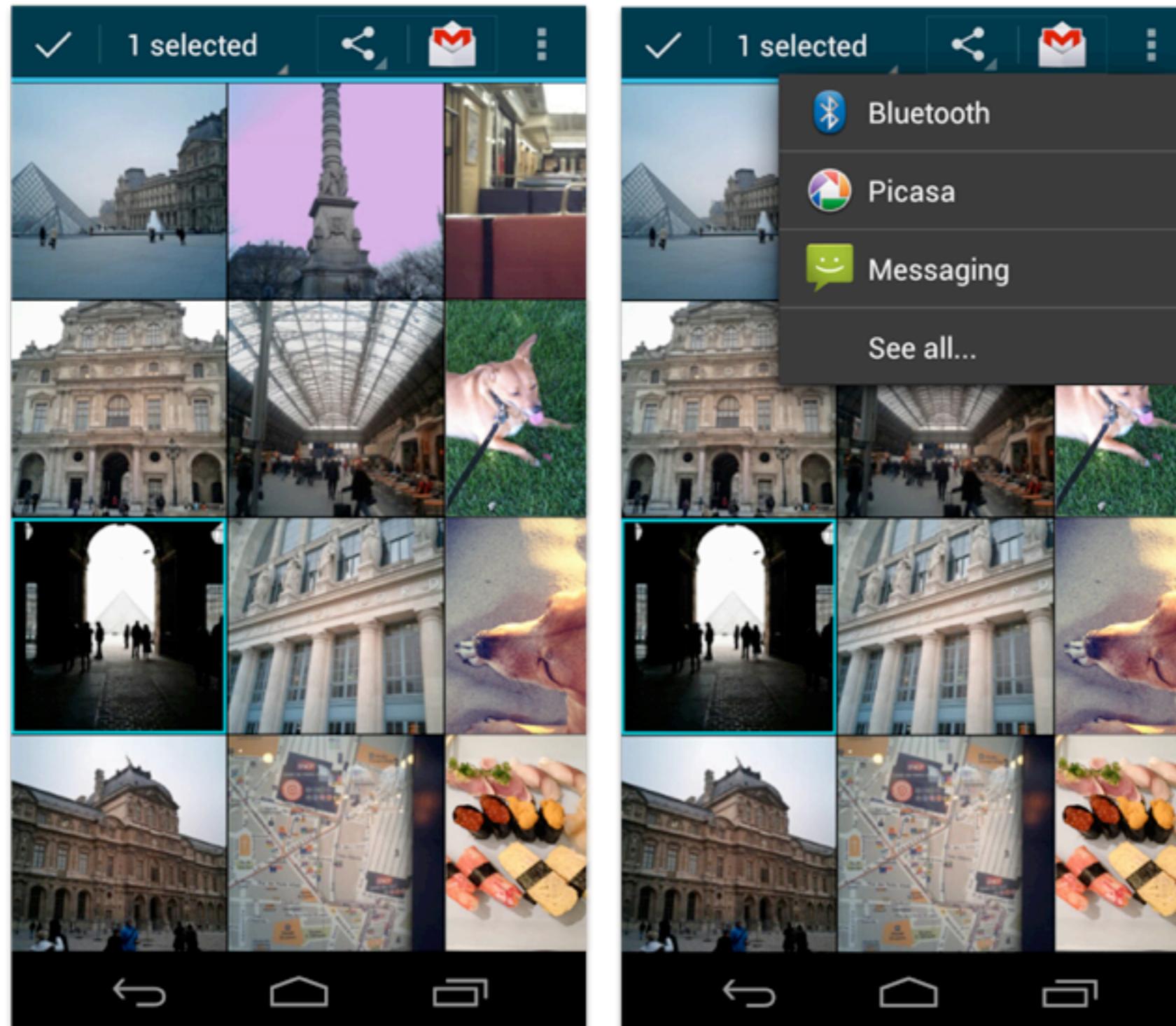


F - Frecuente I - Importante T - Tipico

Action overflow
(acciones menos frecuentes)

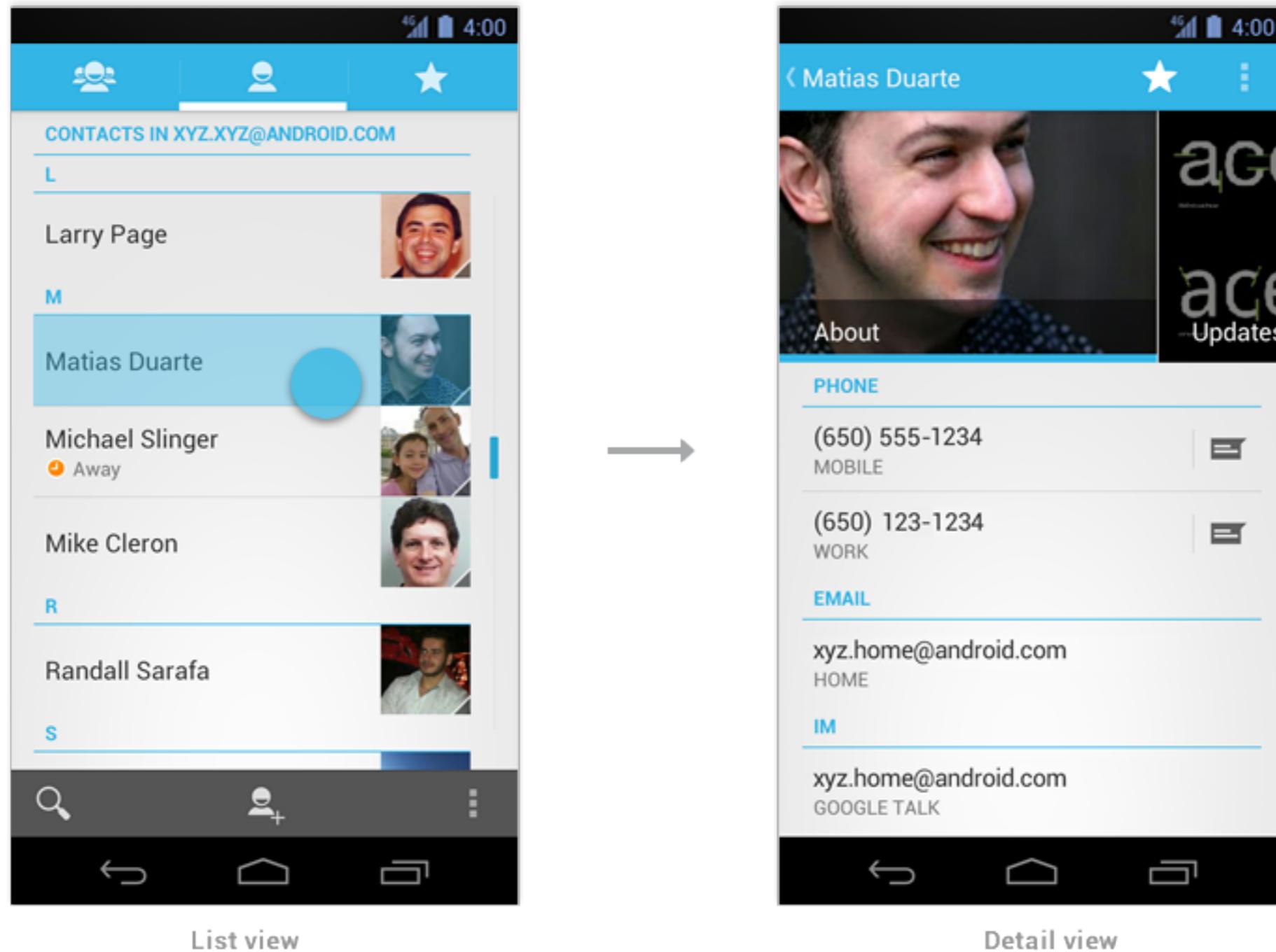


Sharing Data



Multi-pane Layouts

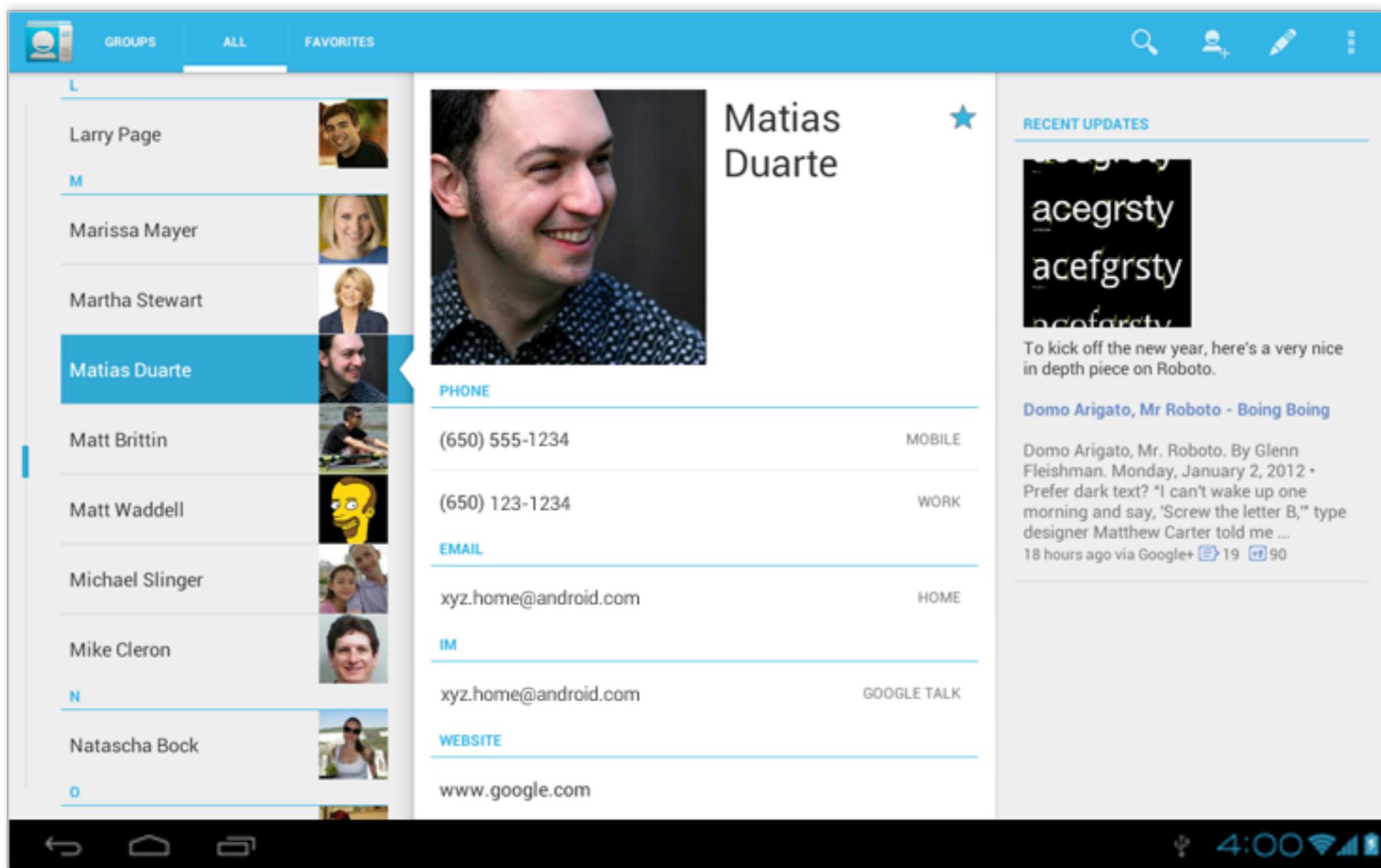
Combinando multiples vistas en una



List view

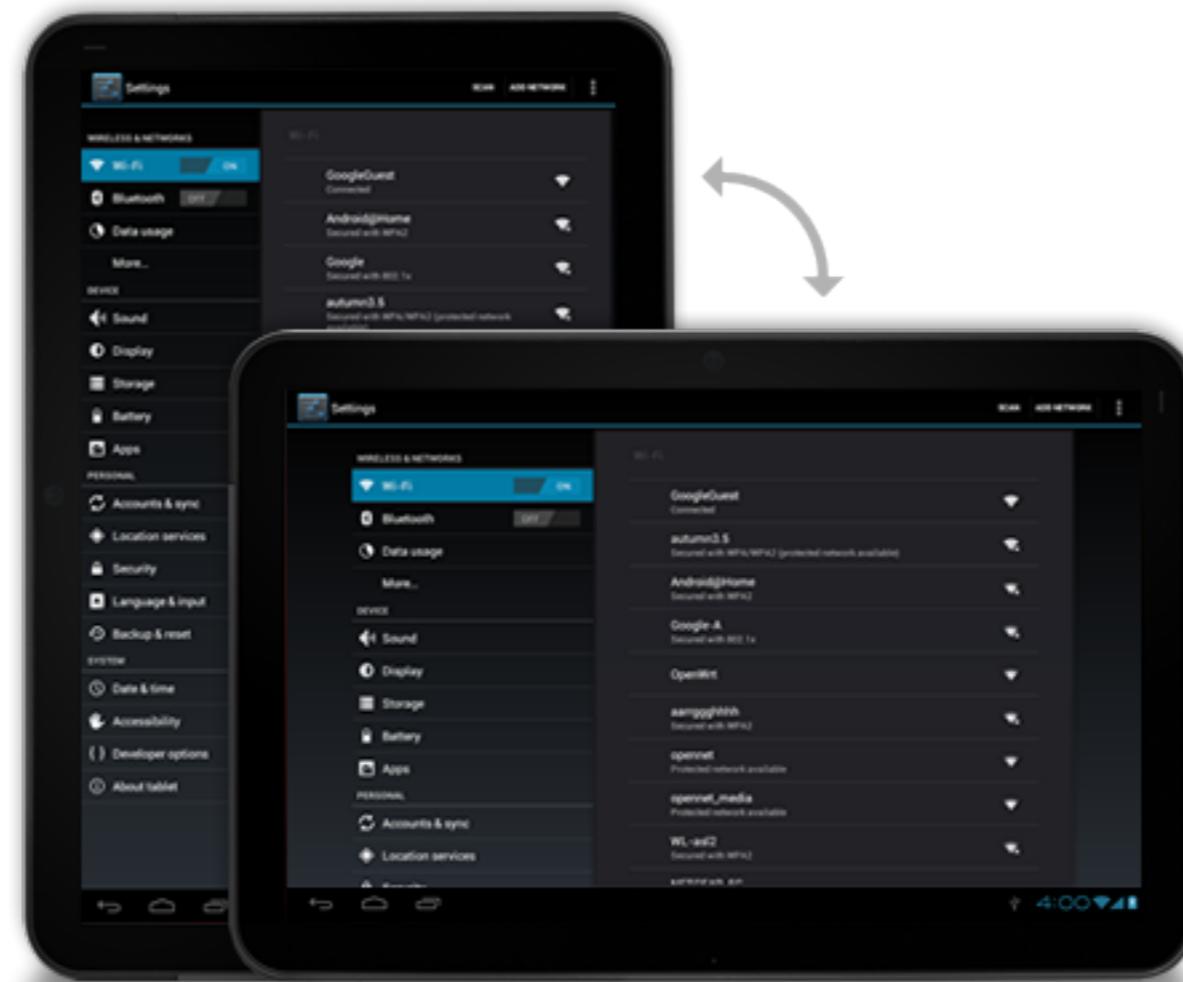
Detail view

Combinando multiples vistas en una tablet

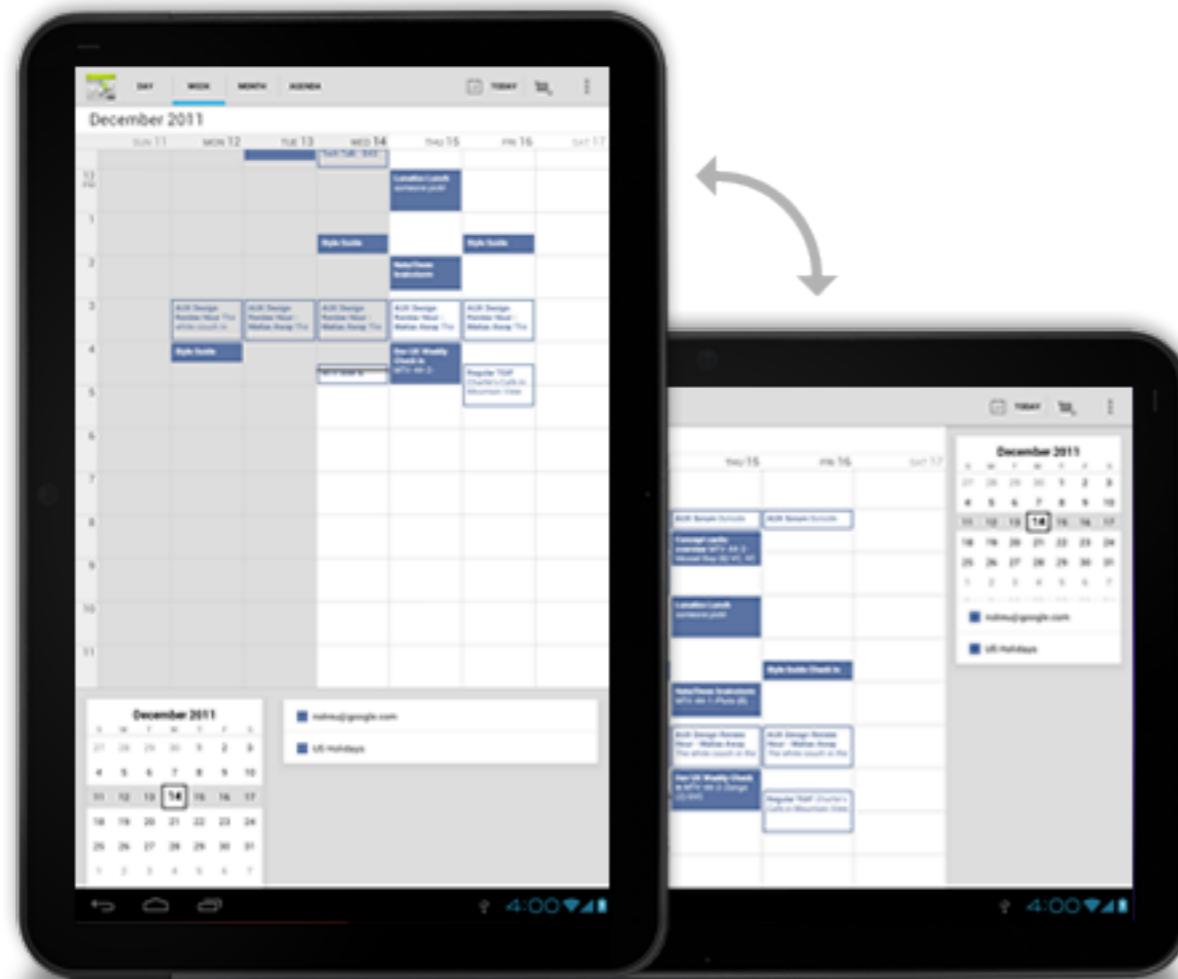


Vistas compuestas y cambios de orientación

Stretch compress

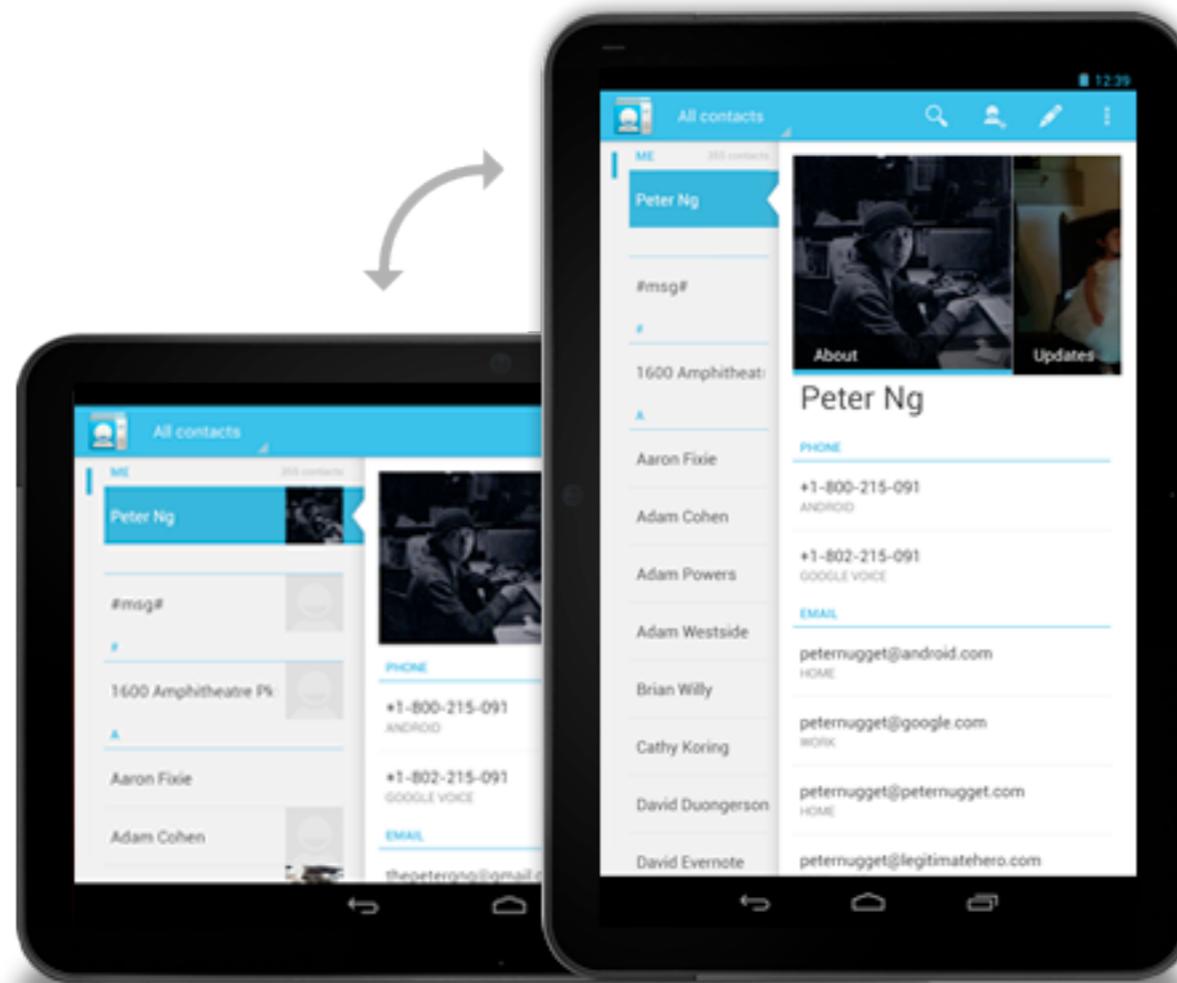


Vistas compuestas y cambios de orientación



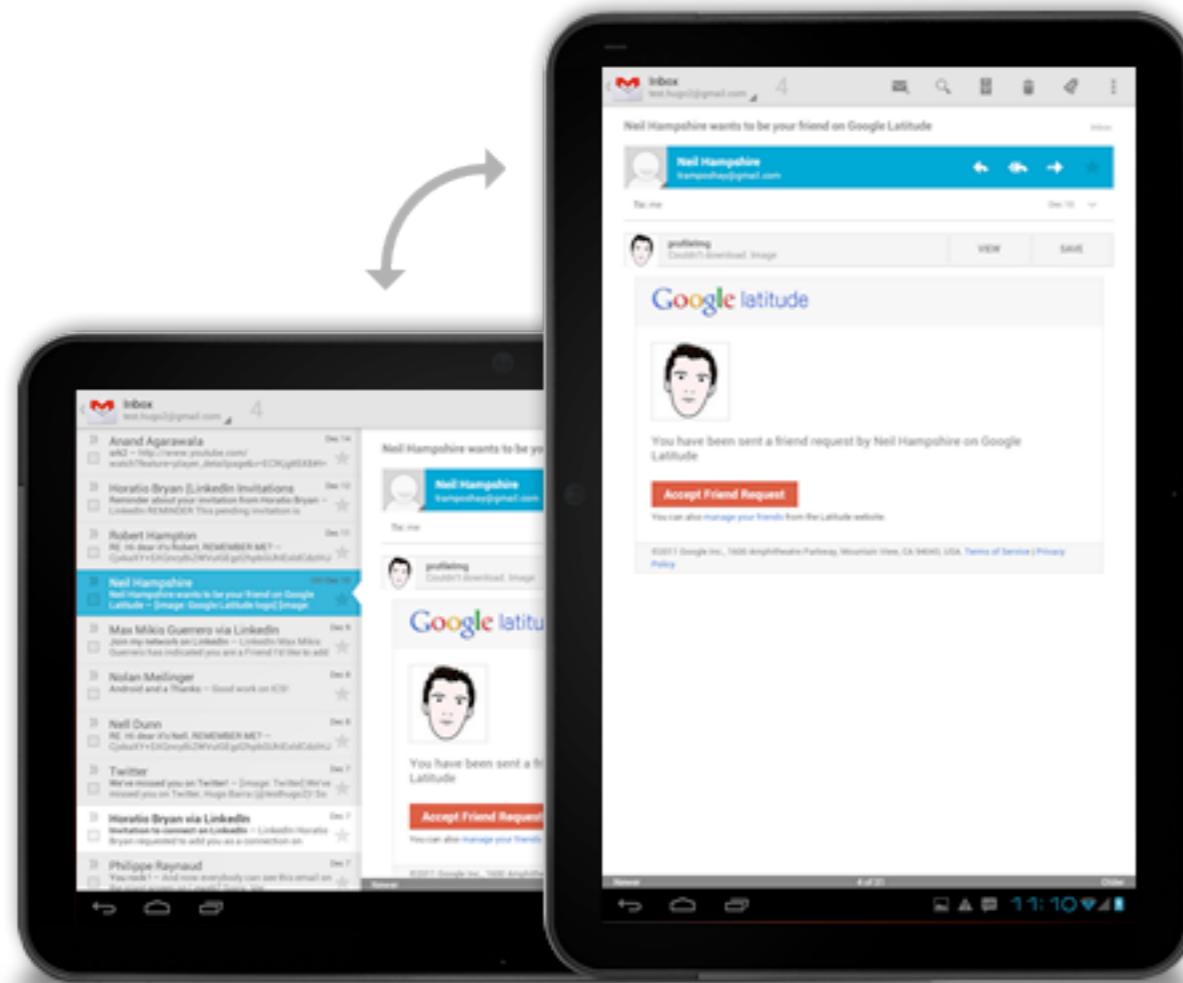
Stack

Vistas compuestas y cambios de orientación



Expand/Collapse

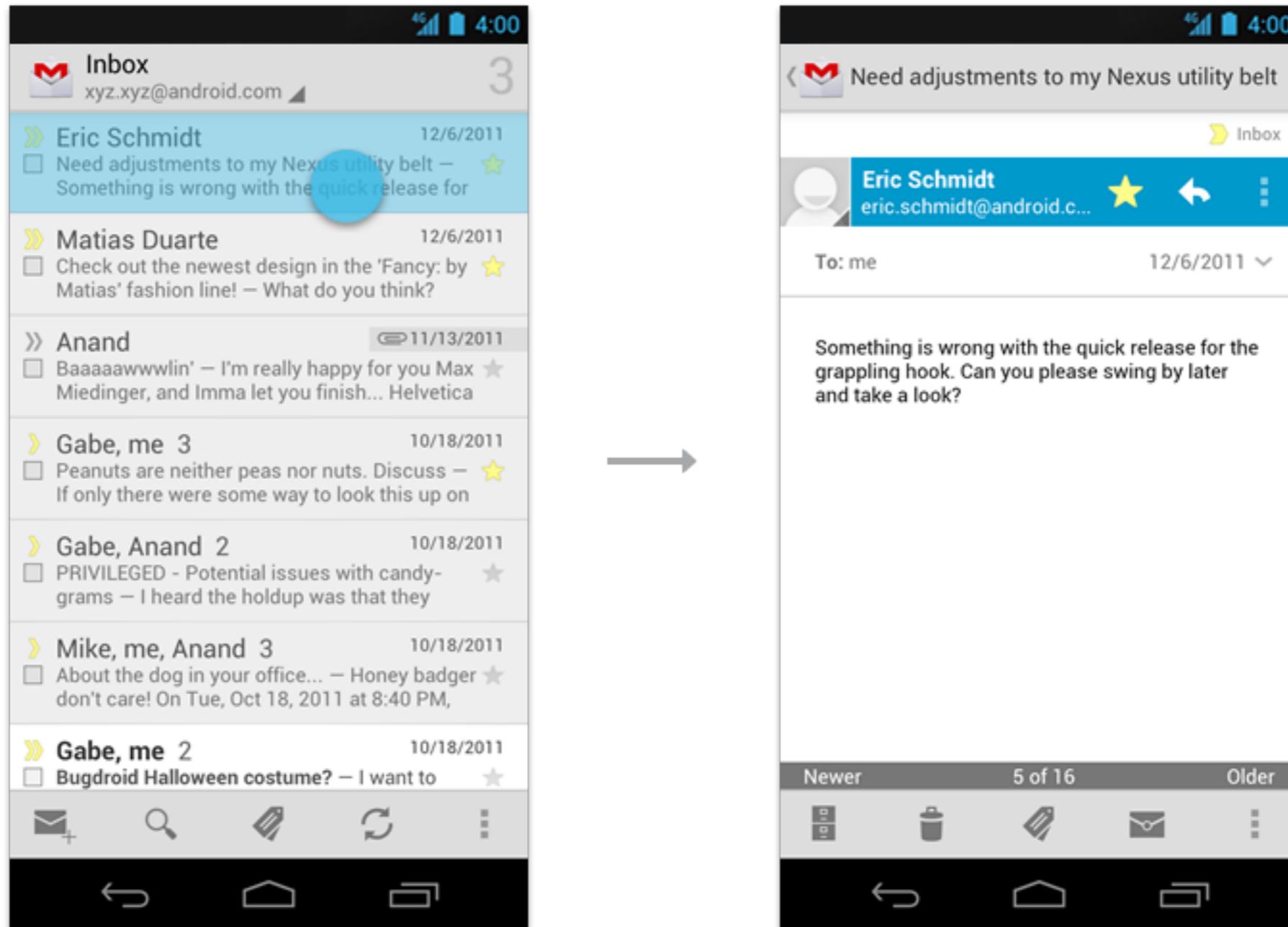
Vistas compuestas y cambios de orientación



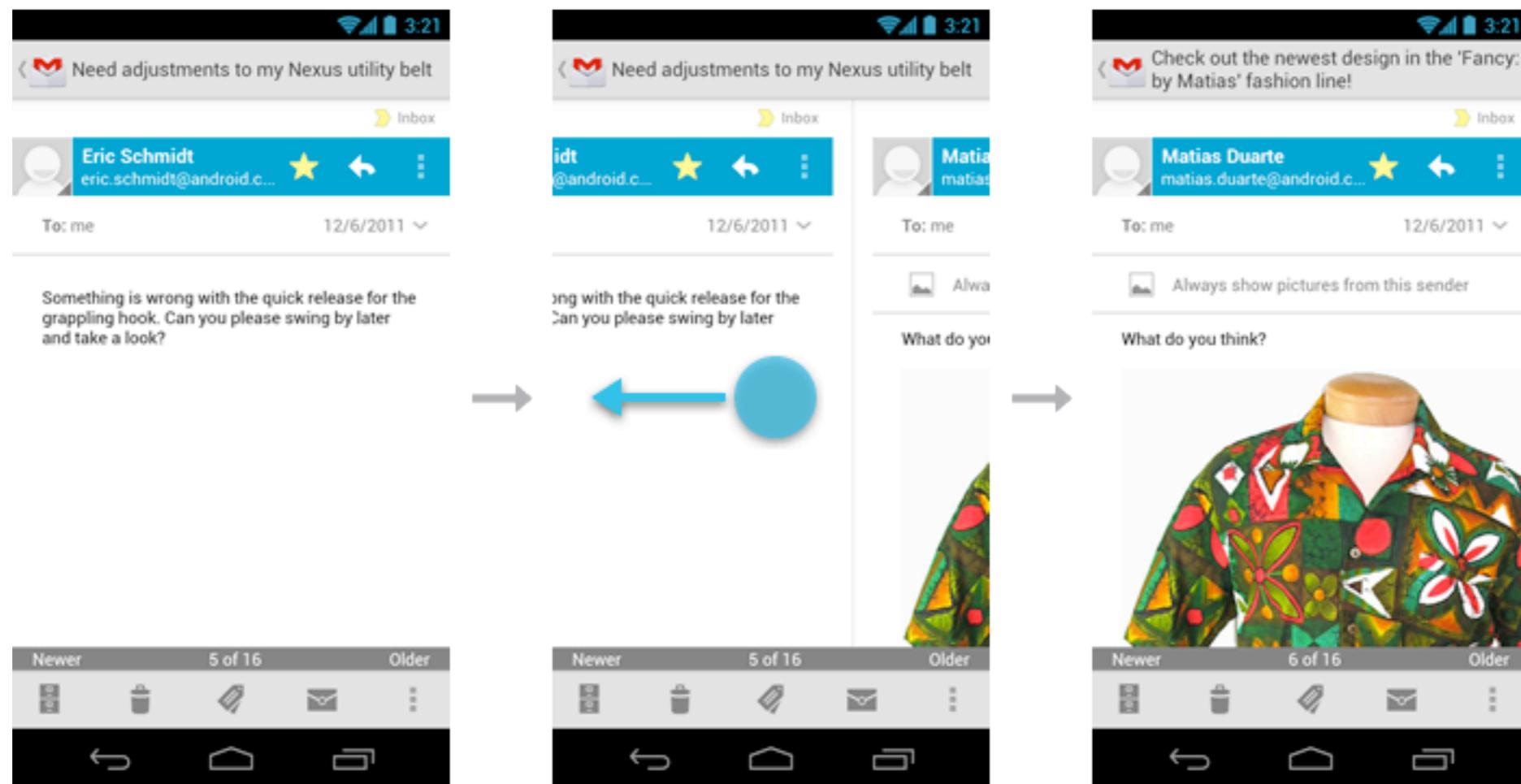
Show/Hide

Swipe Views

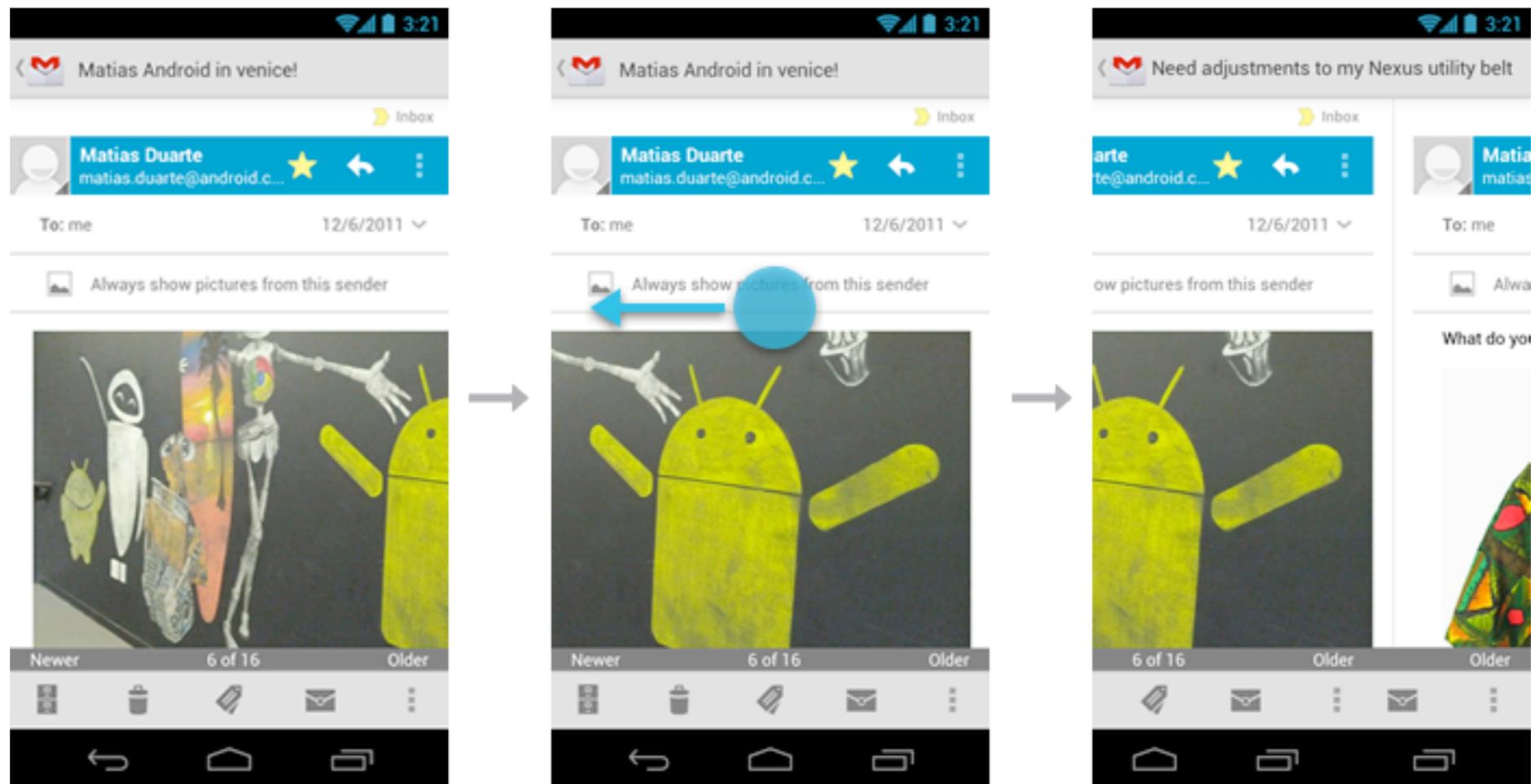
Swiping entre vistas Detail



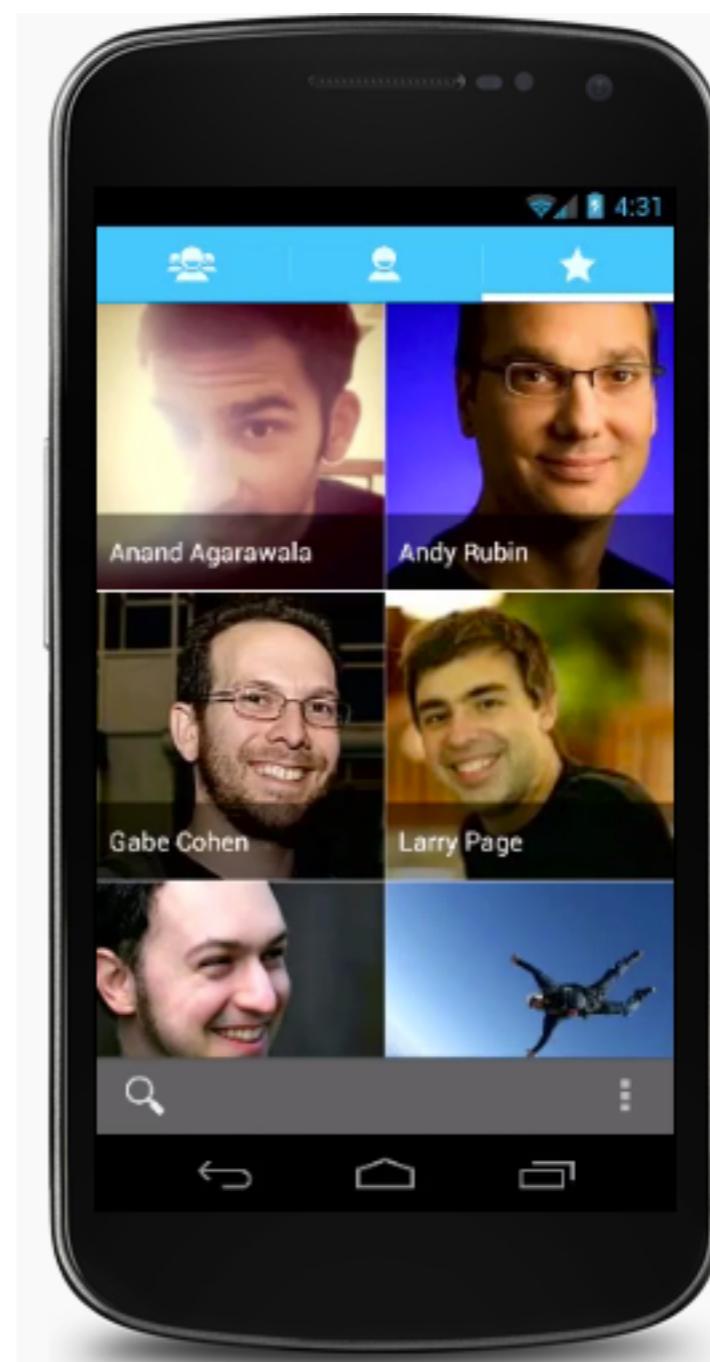
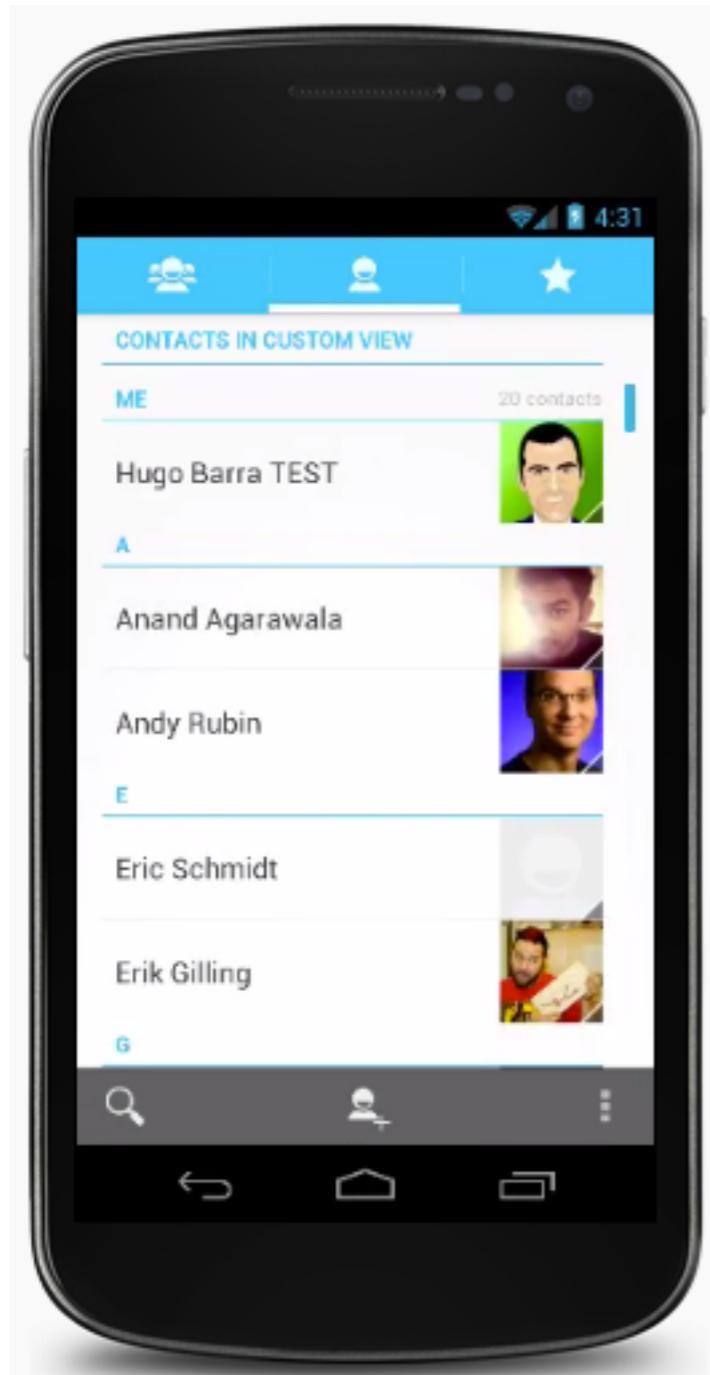
Swiping entre vistas Detail



Swiping entre vistas Detail

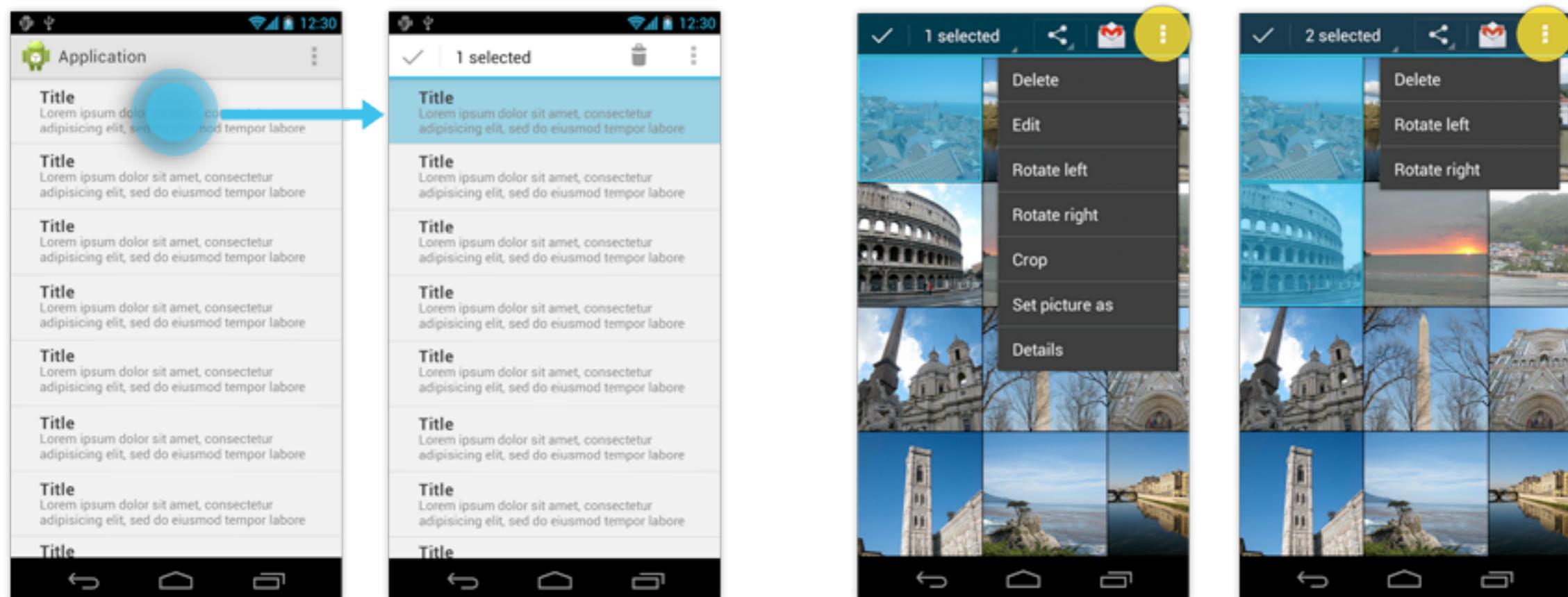


Swiping entre Tabs

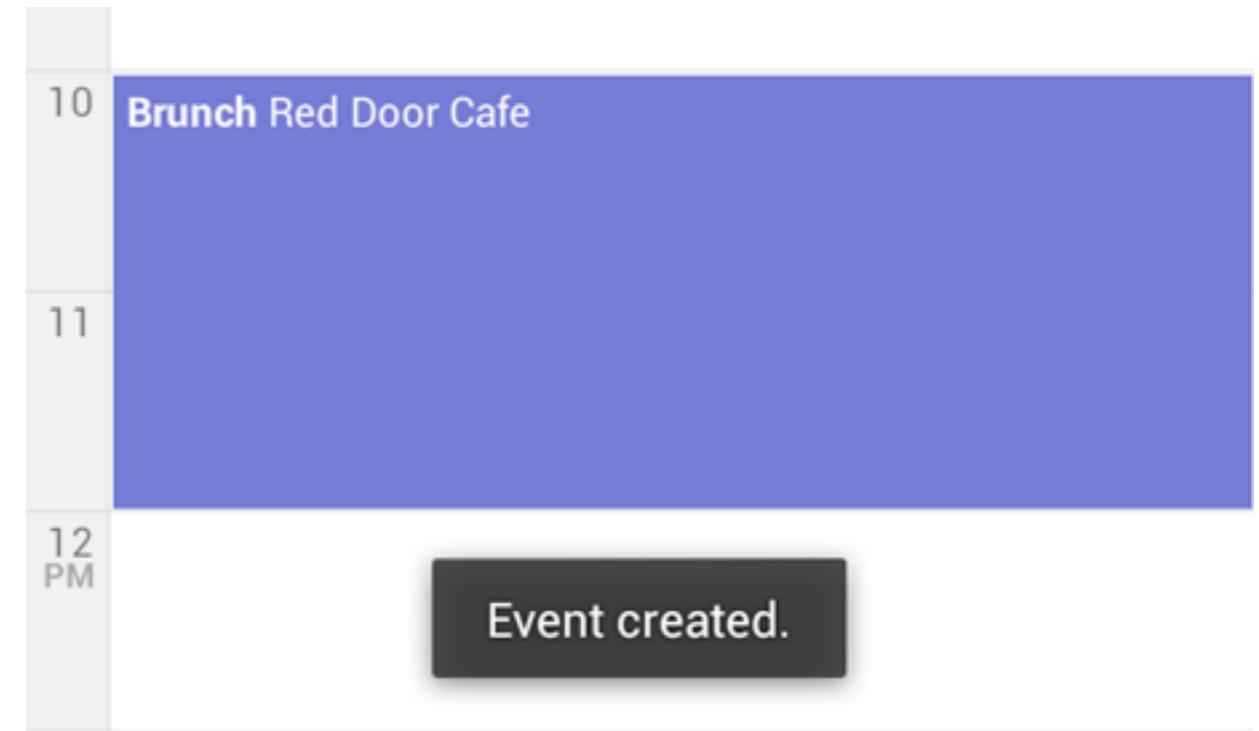
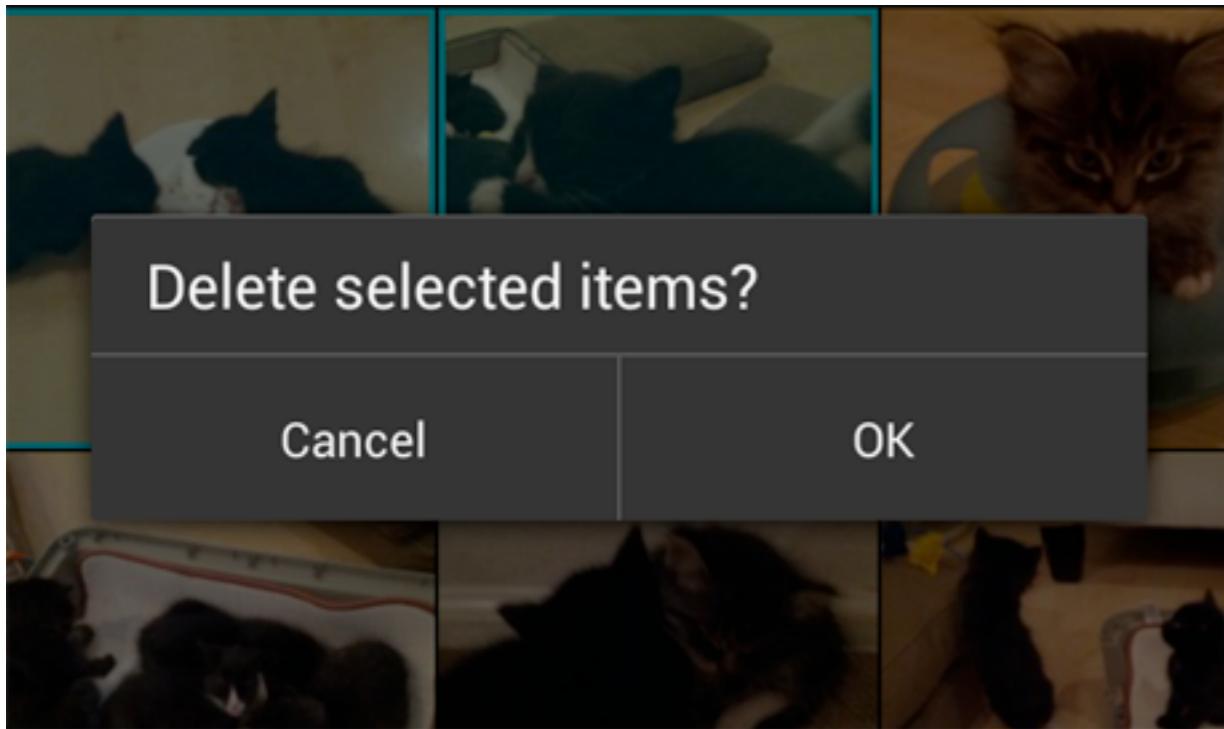


Selection

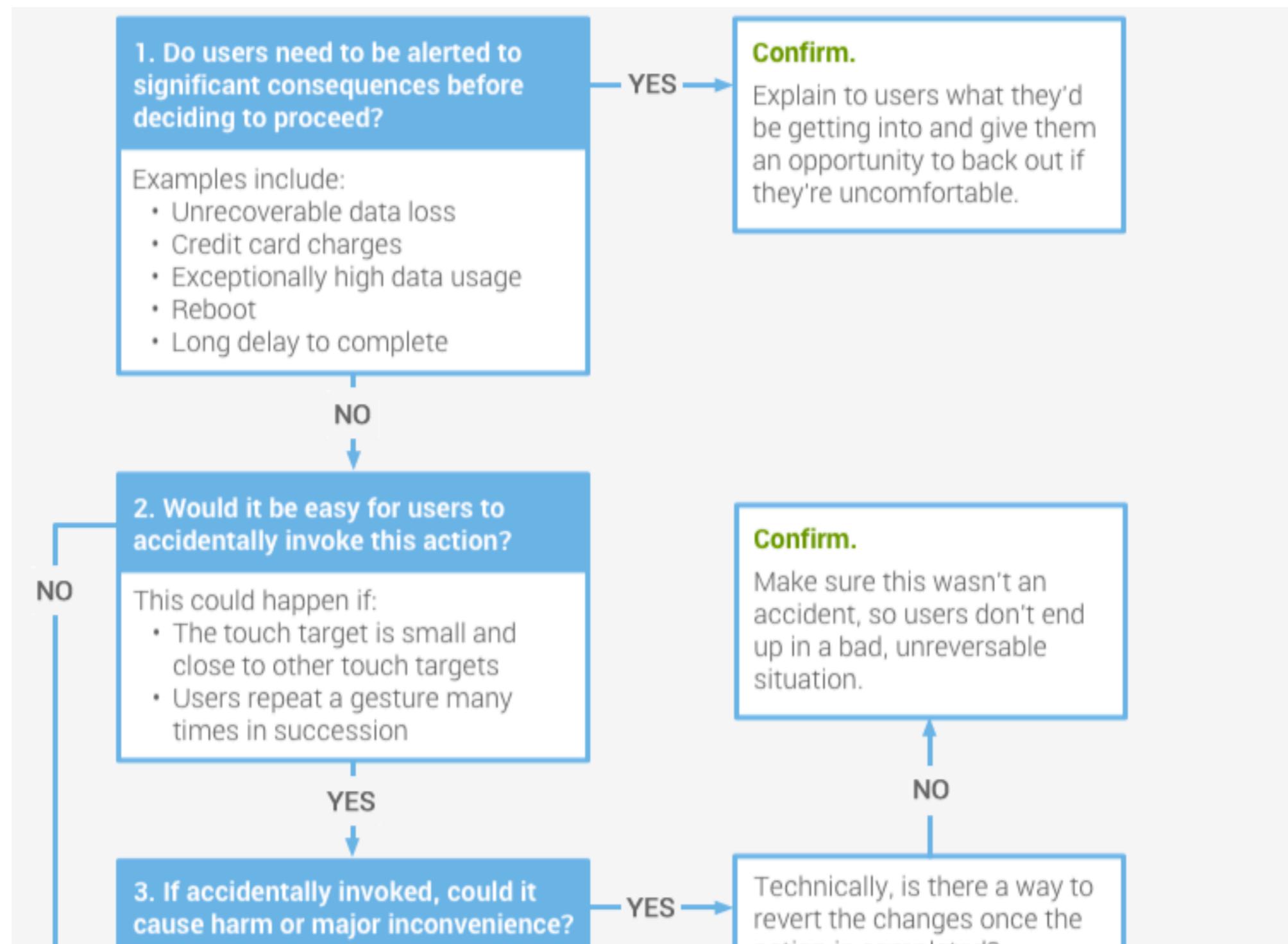
Usando el Contextual Action Bar (CAB)



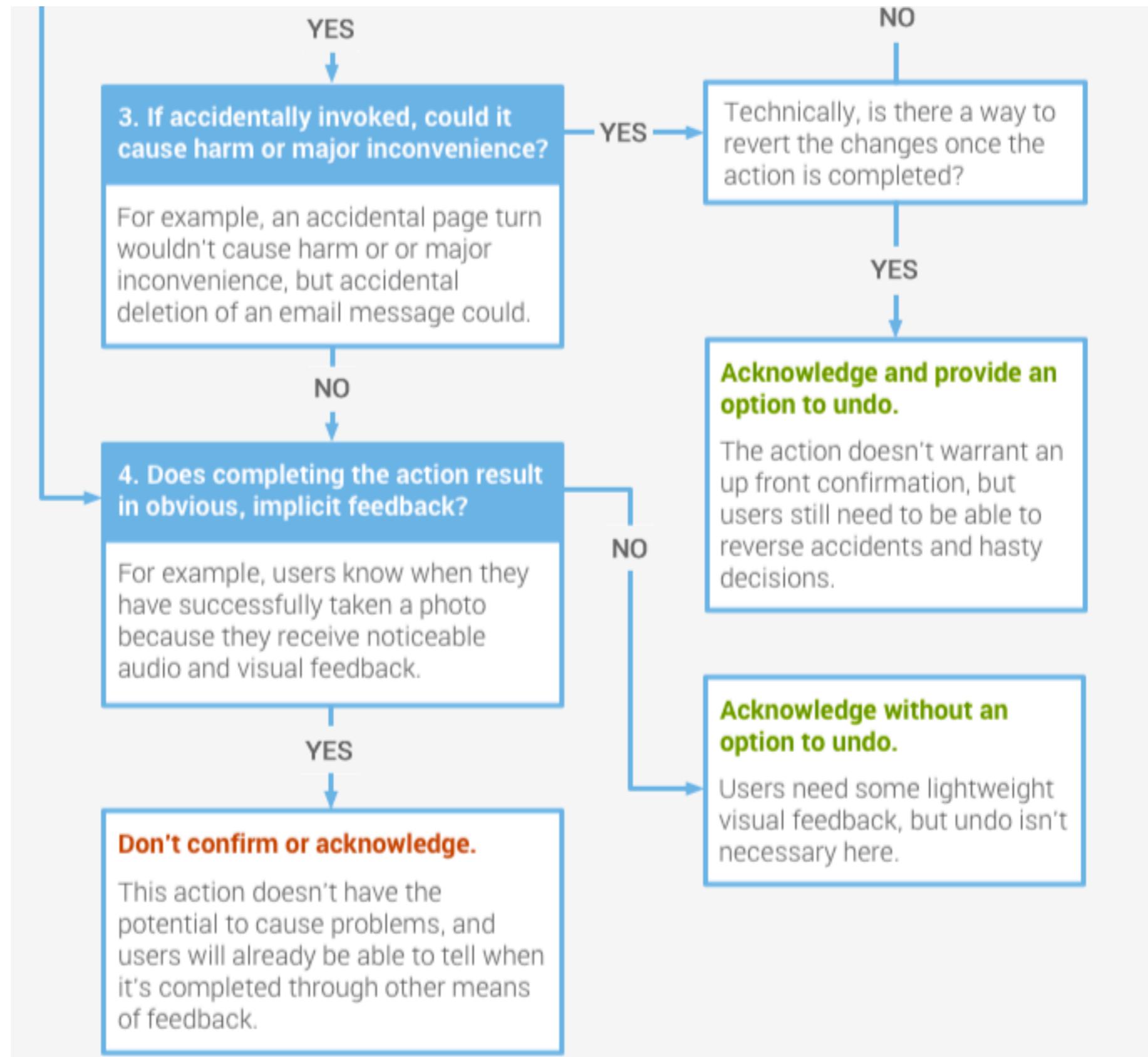
Confirmación & Avisos



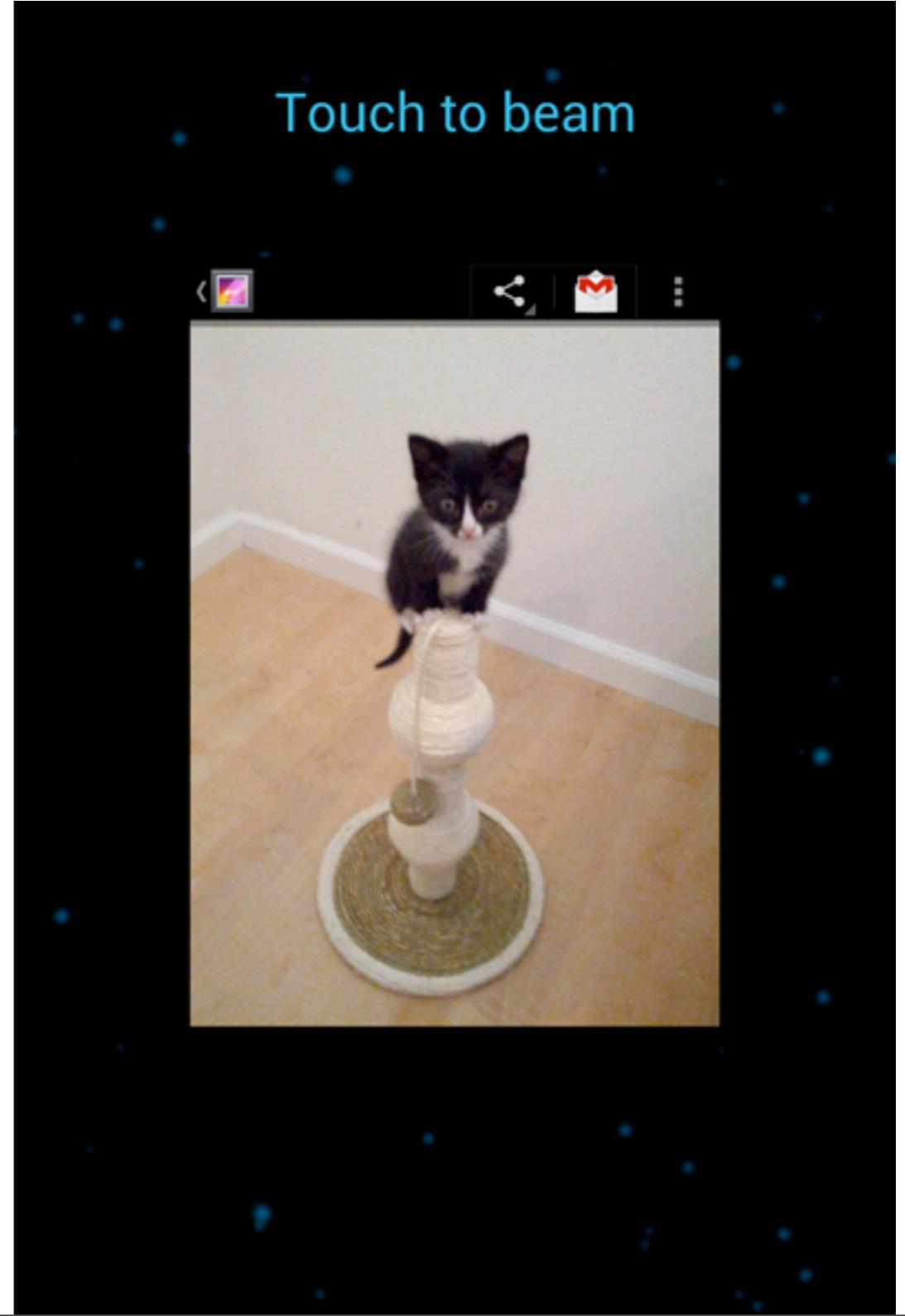
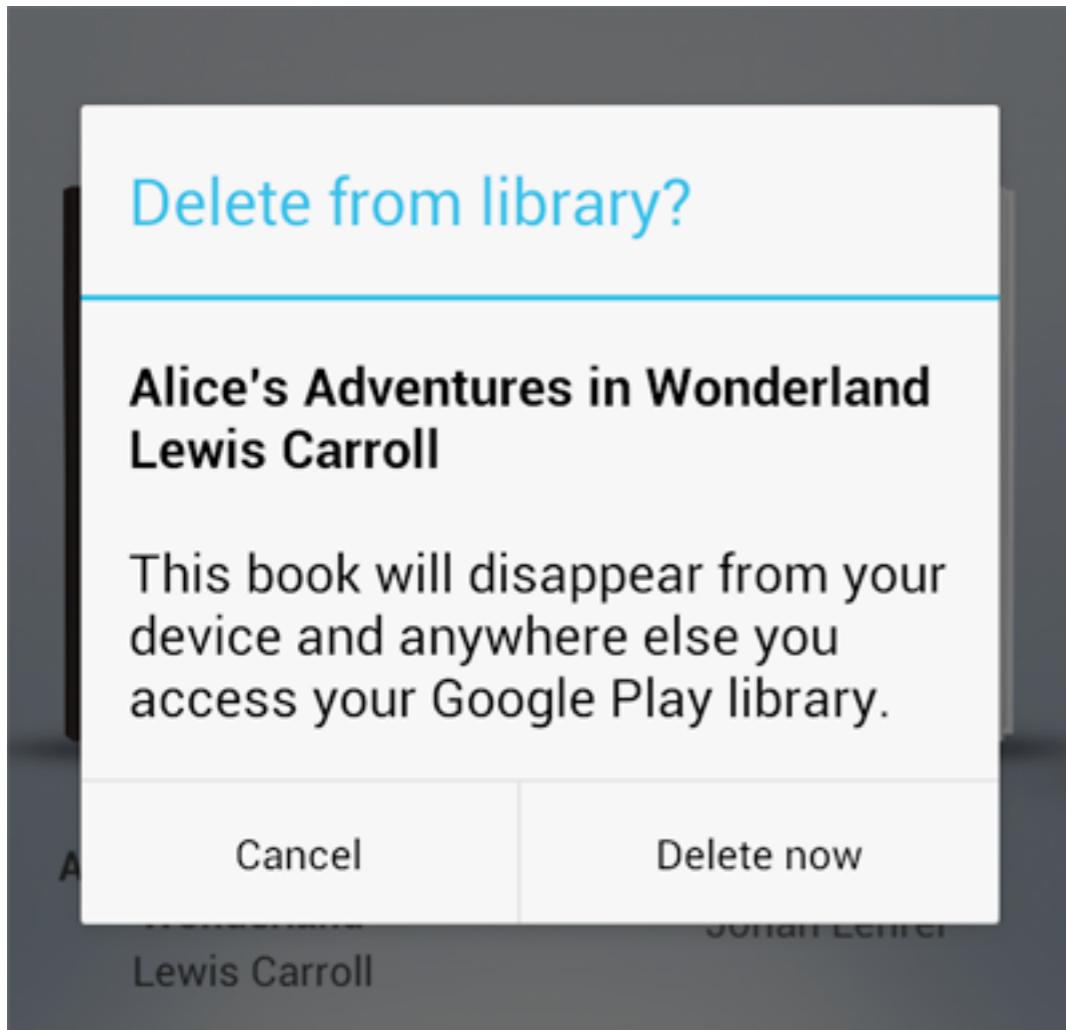
¿Cuando confirmar o notificar?



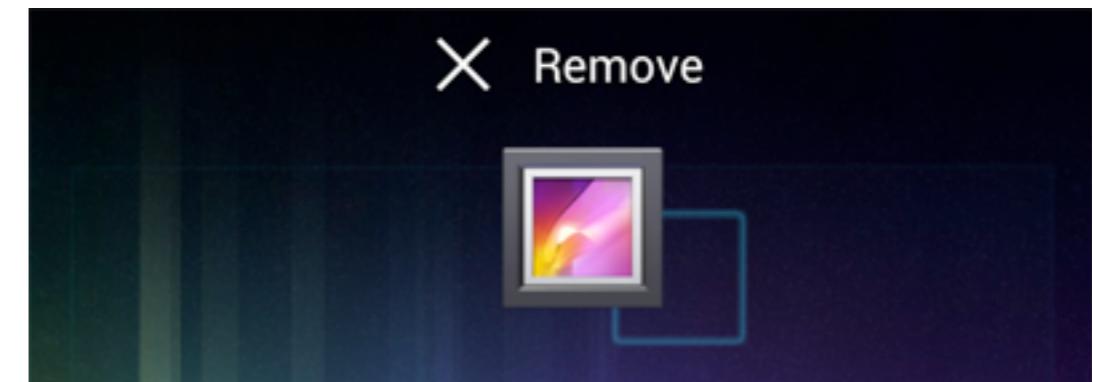
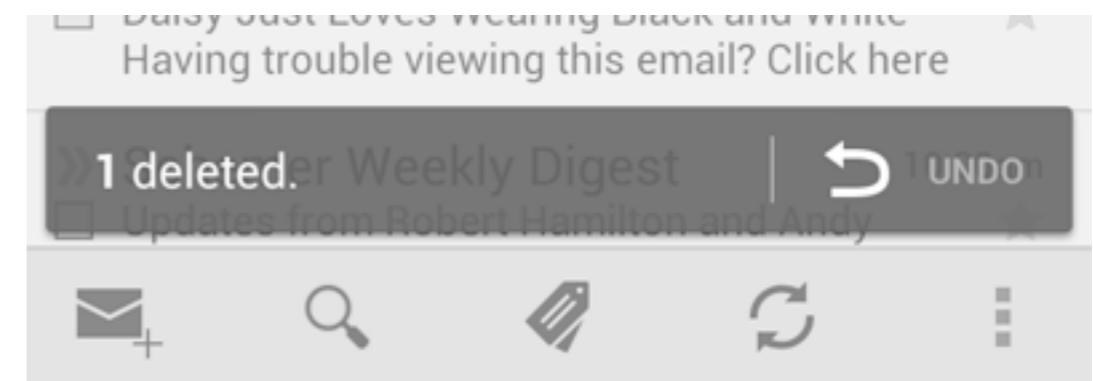
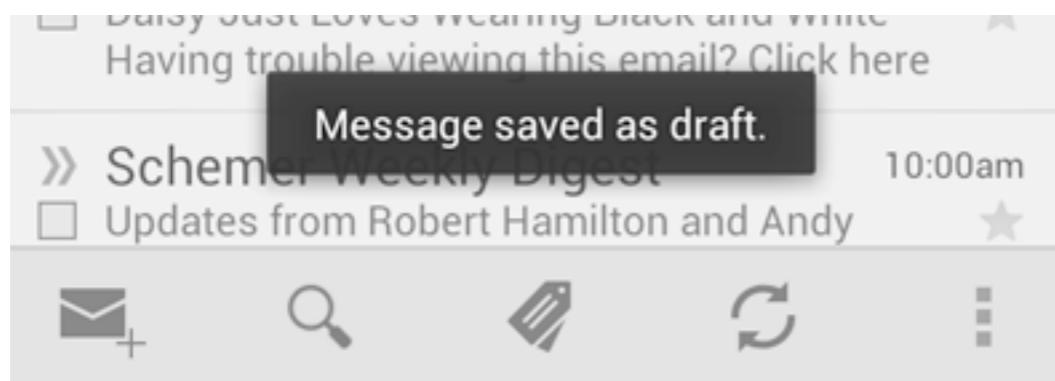
¿Cuando confirmar o notificar?



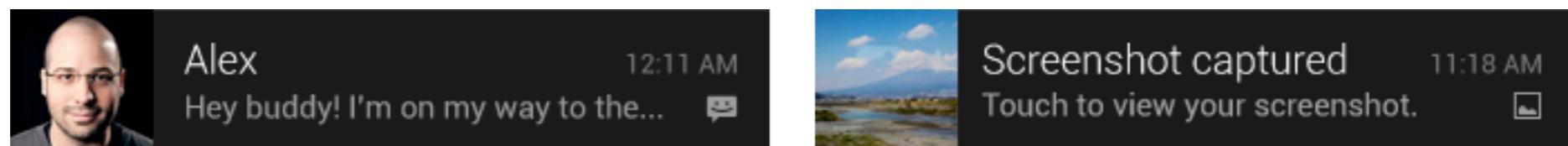
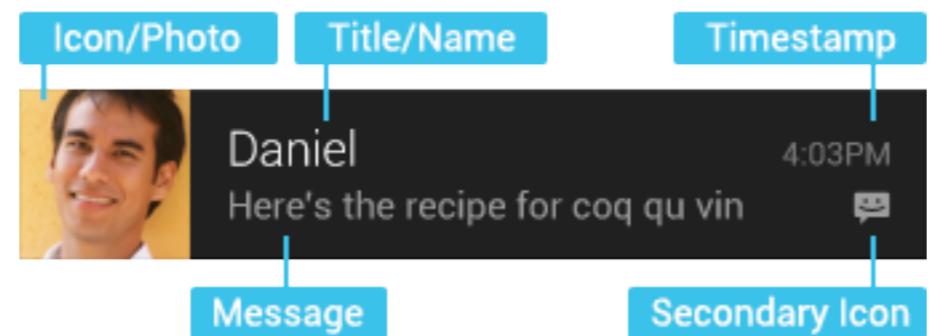
Ejemplos



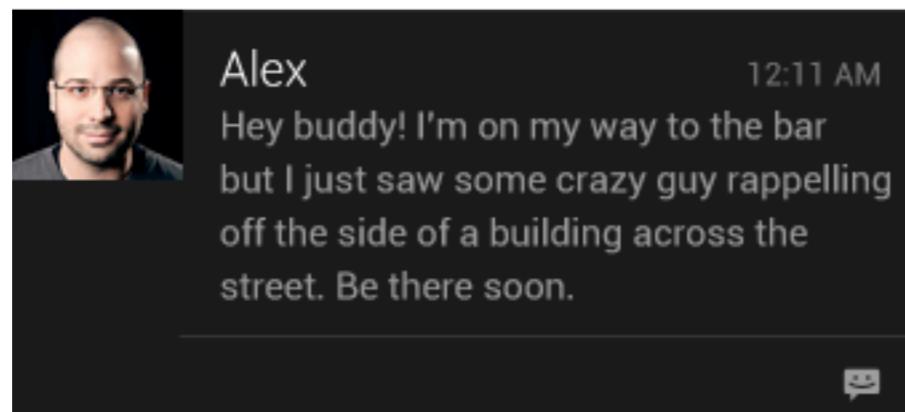
Ejemplos



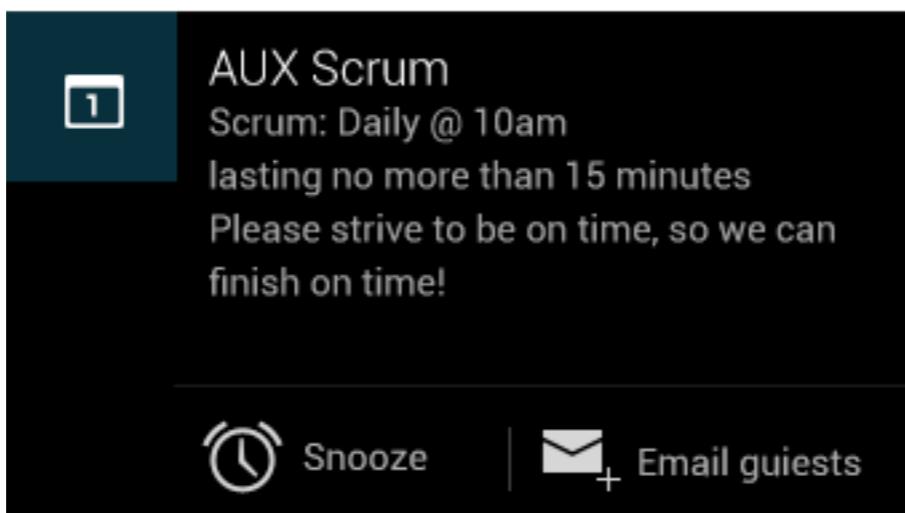
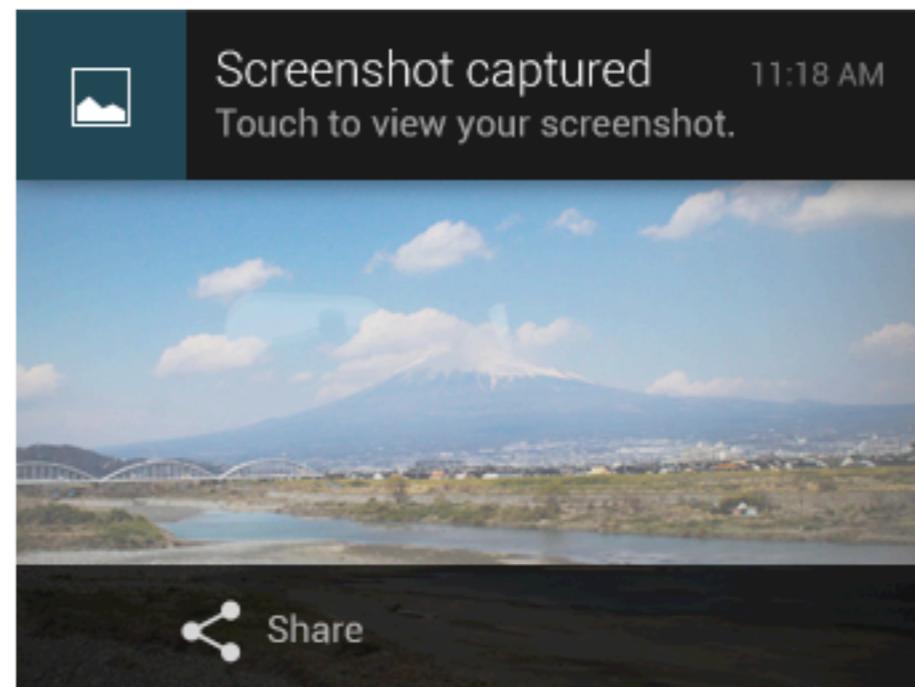
Notificaciones

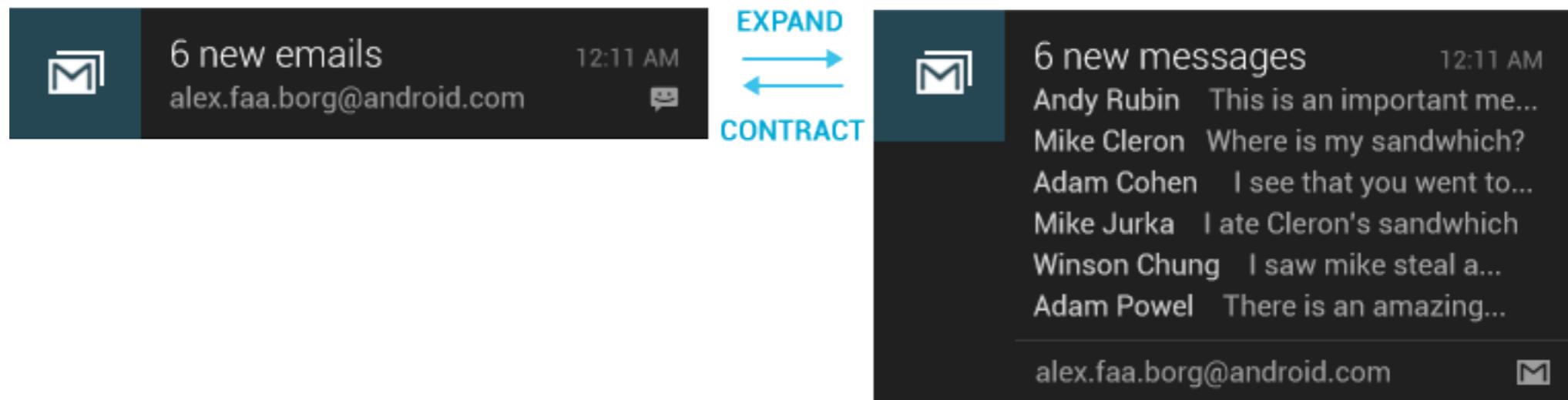
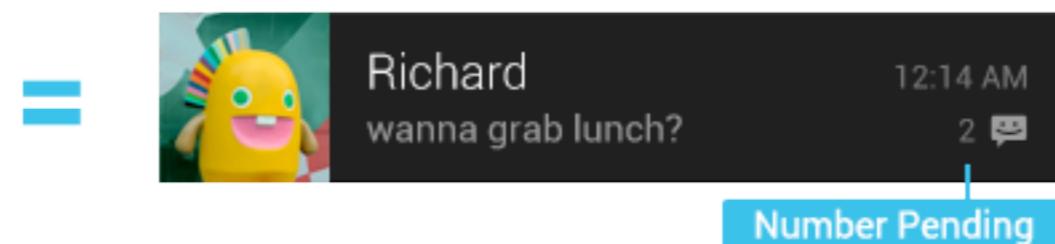


EXPAND CONTRACT

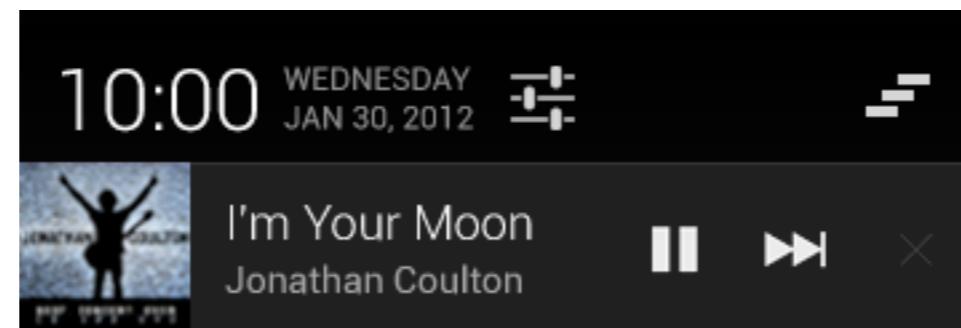
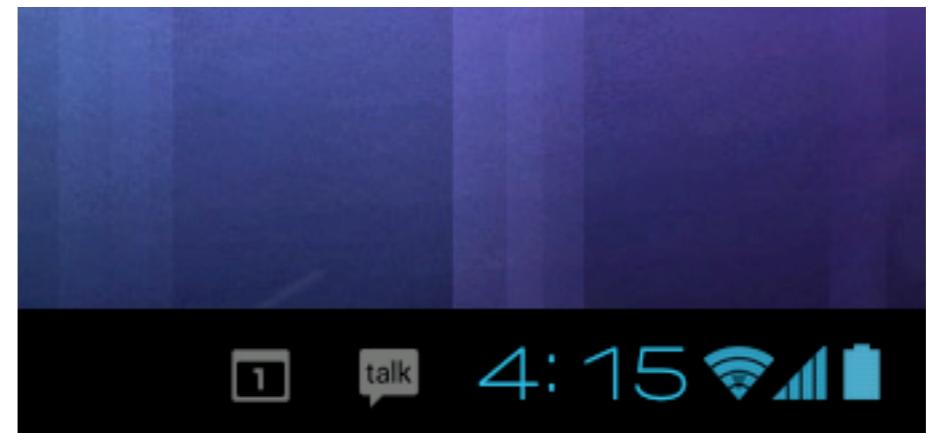
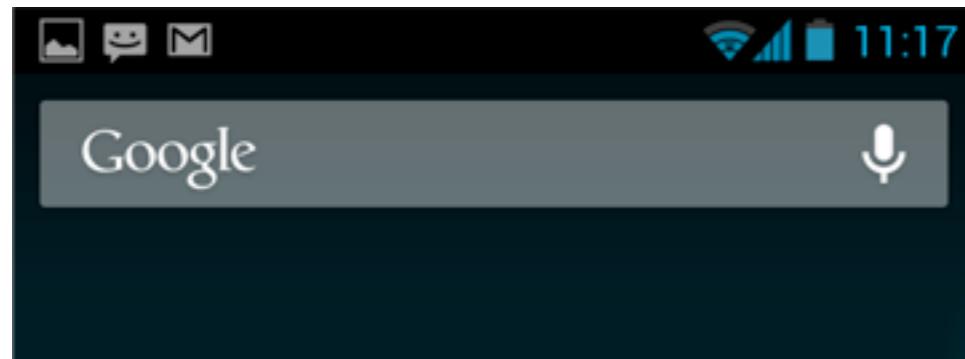


EXPAND CONTRACT





Ejemplos

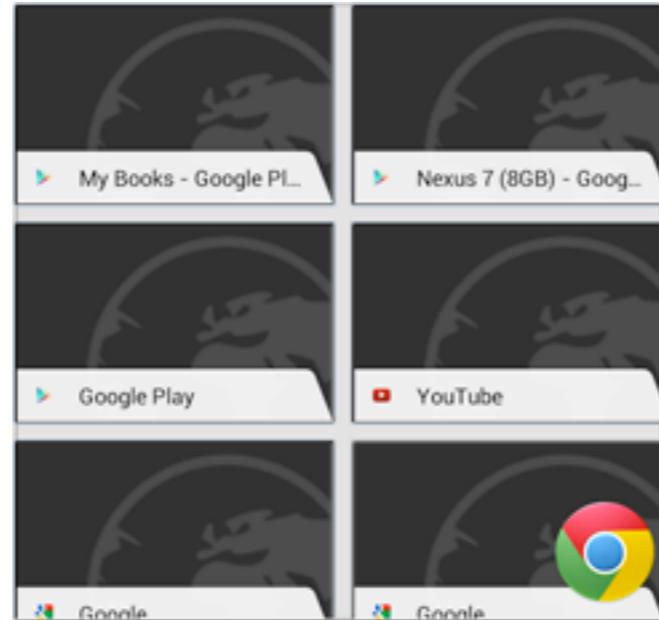


Widgets

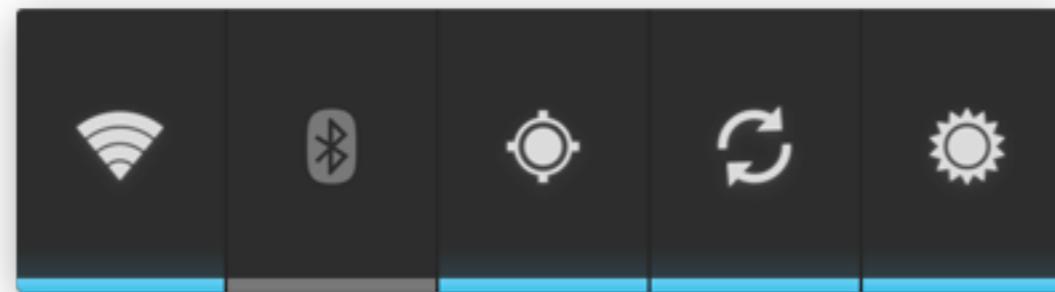
Información



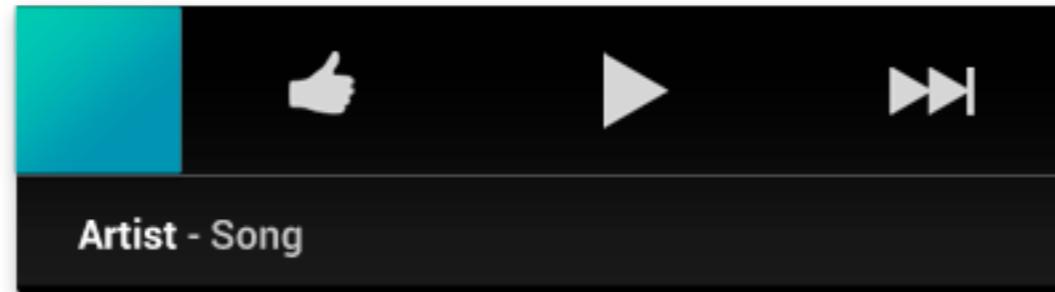
Colección



Control

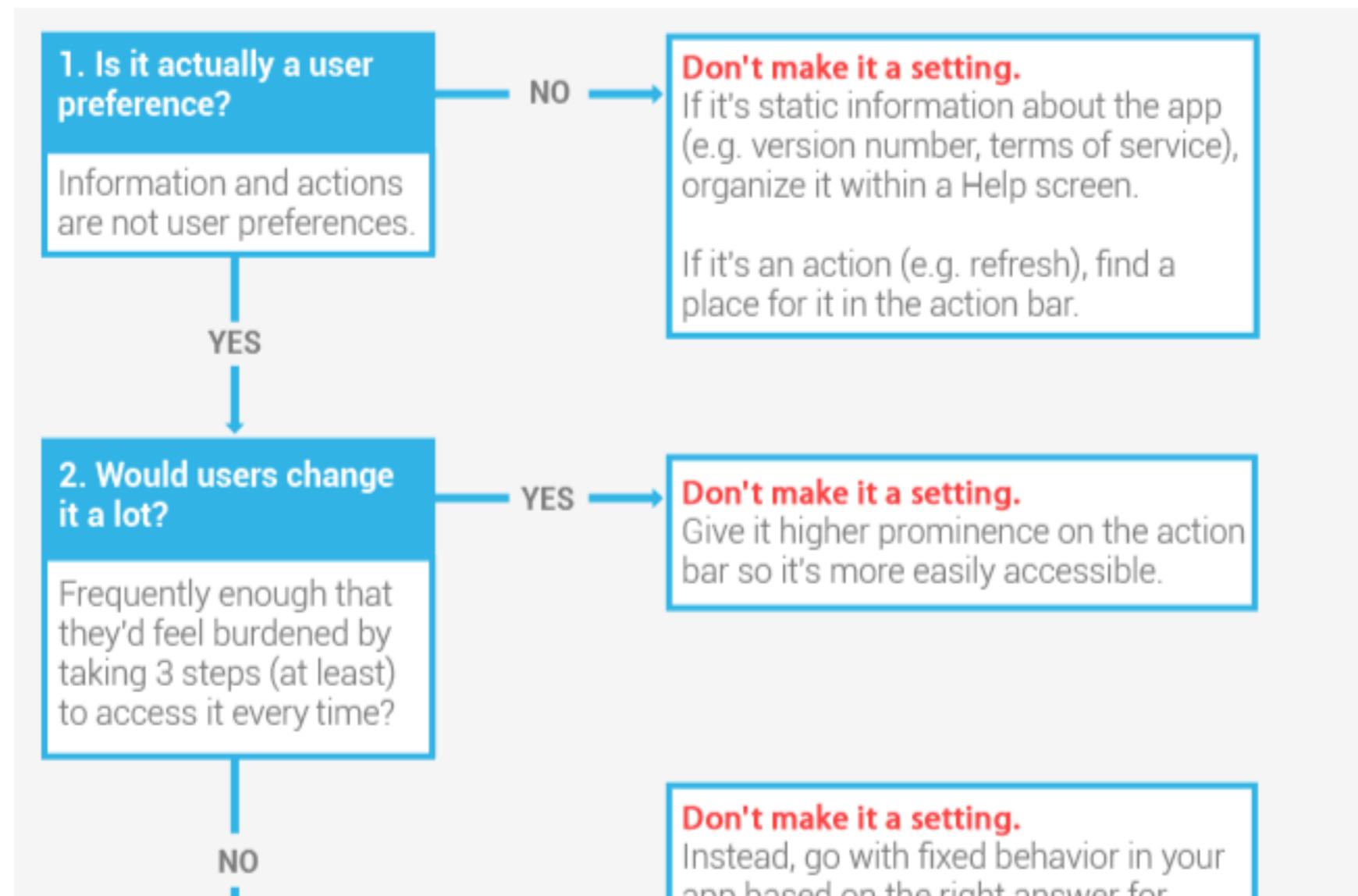


Híbridos

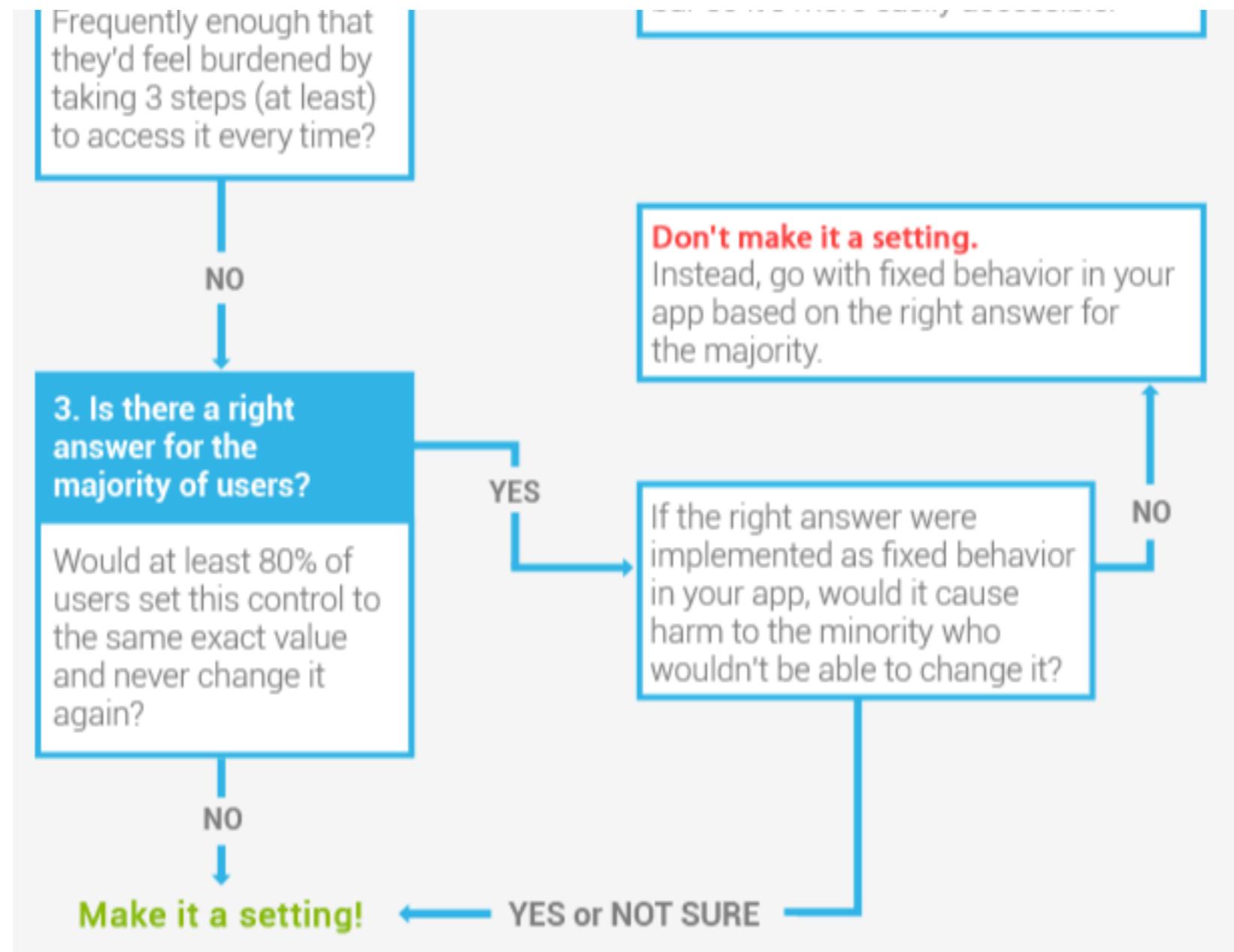


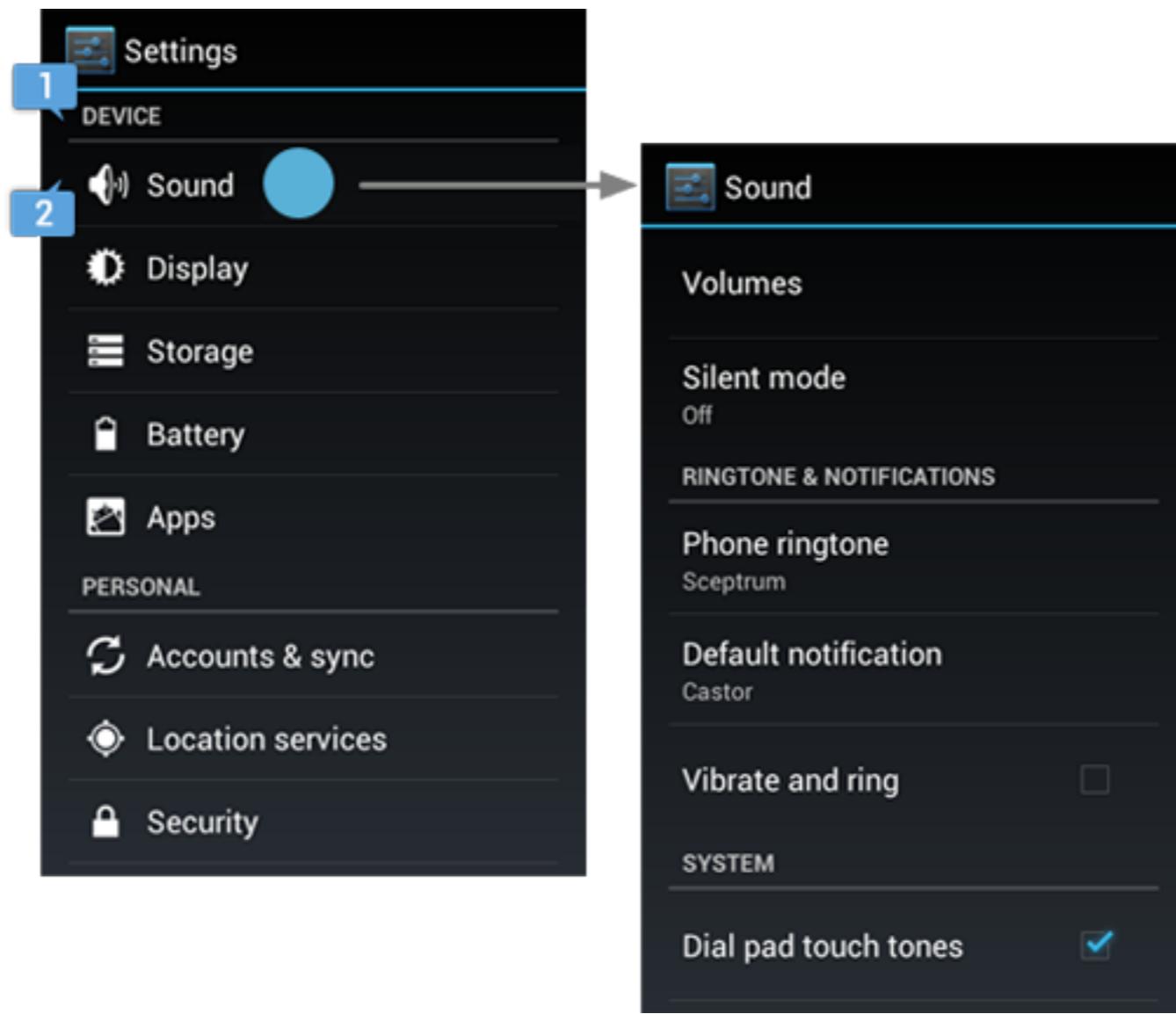
Settings

¿Cuando hacer un settings?

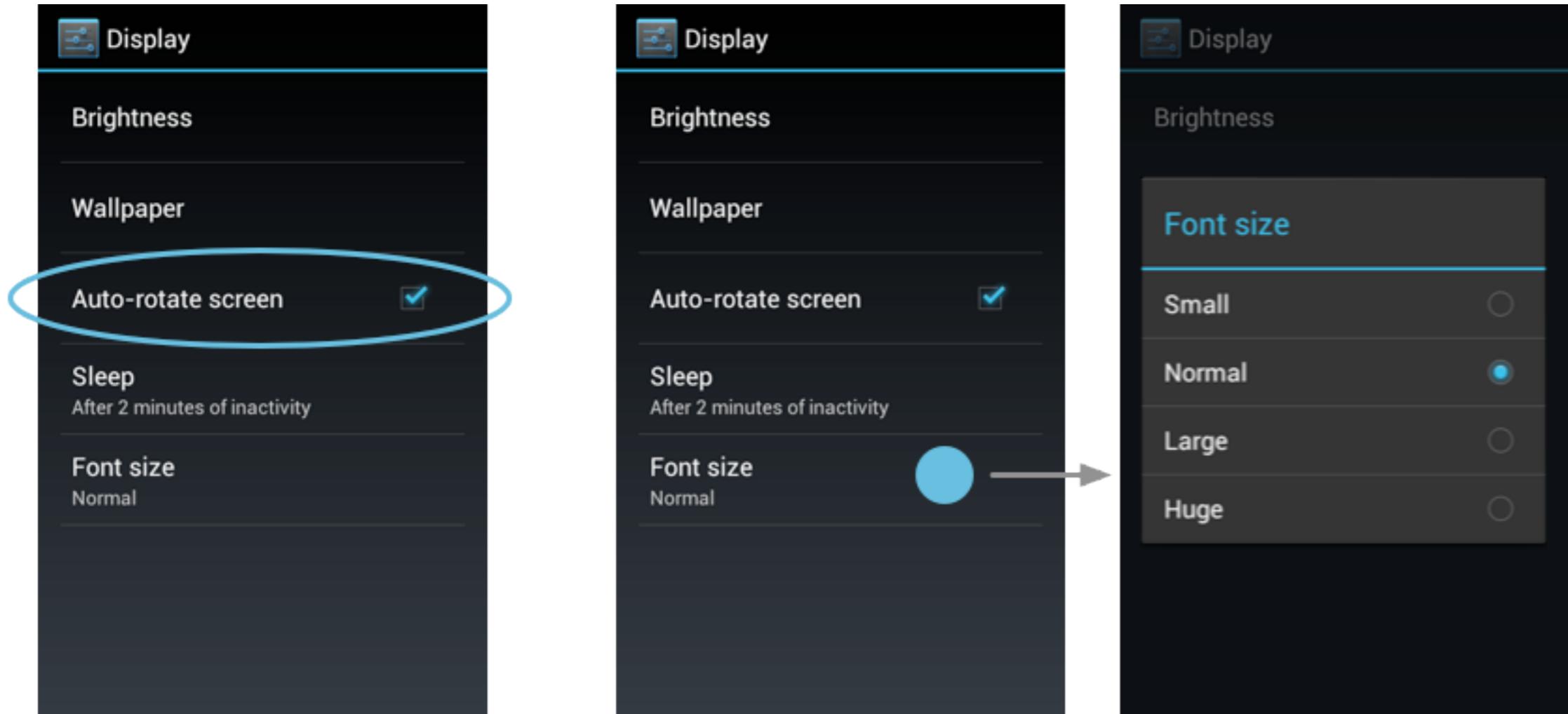


¿Cuando hacer un settings?

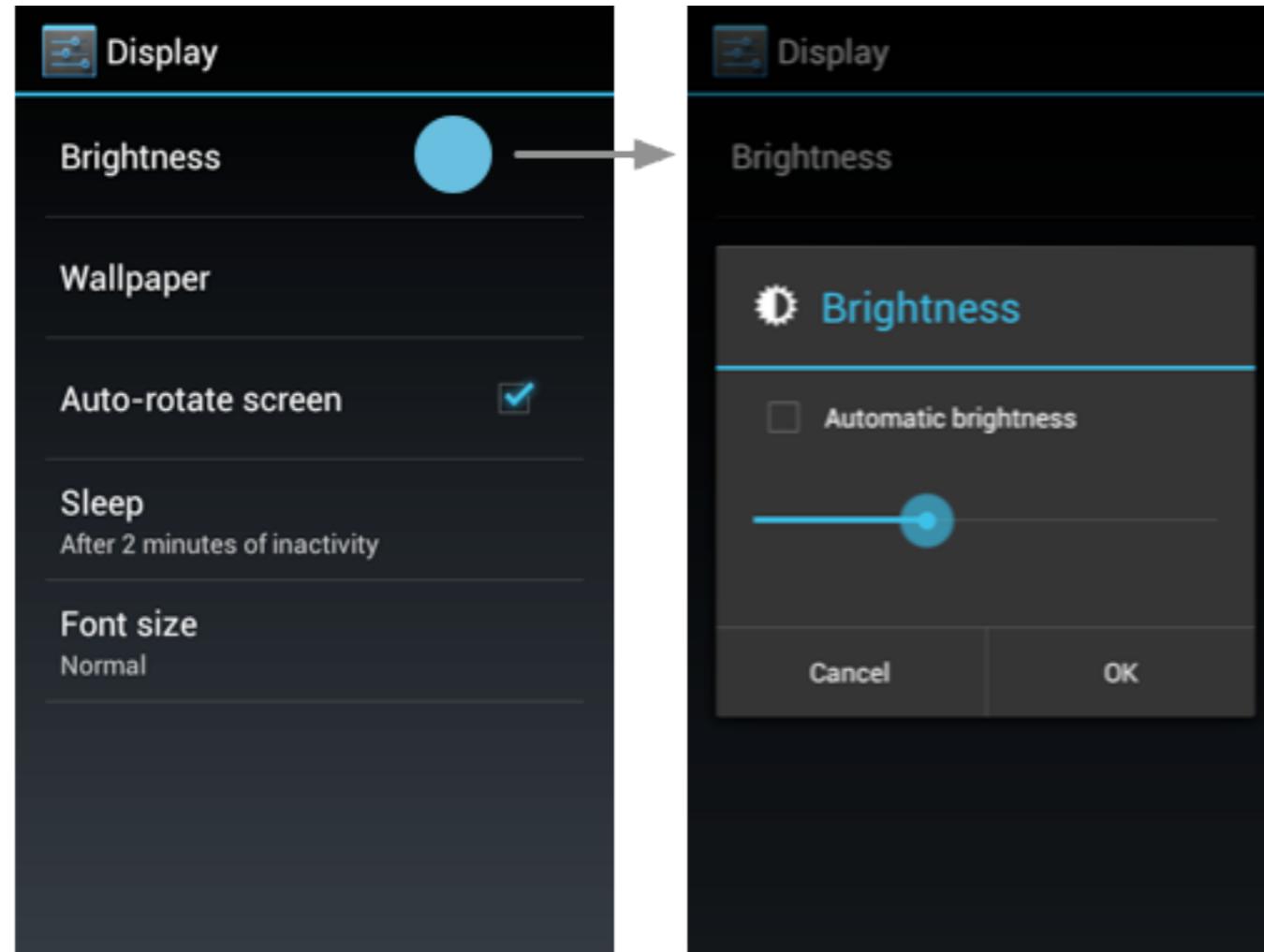




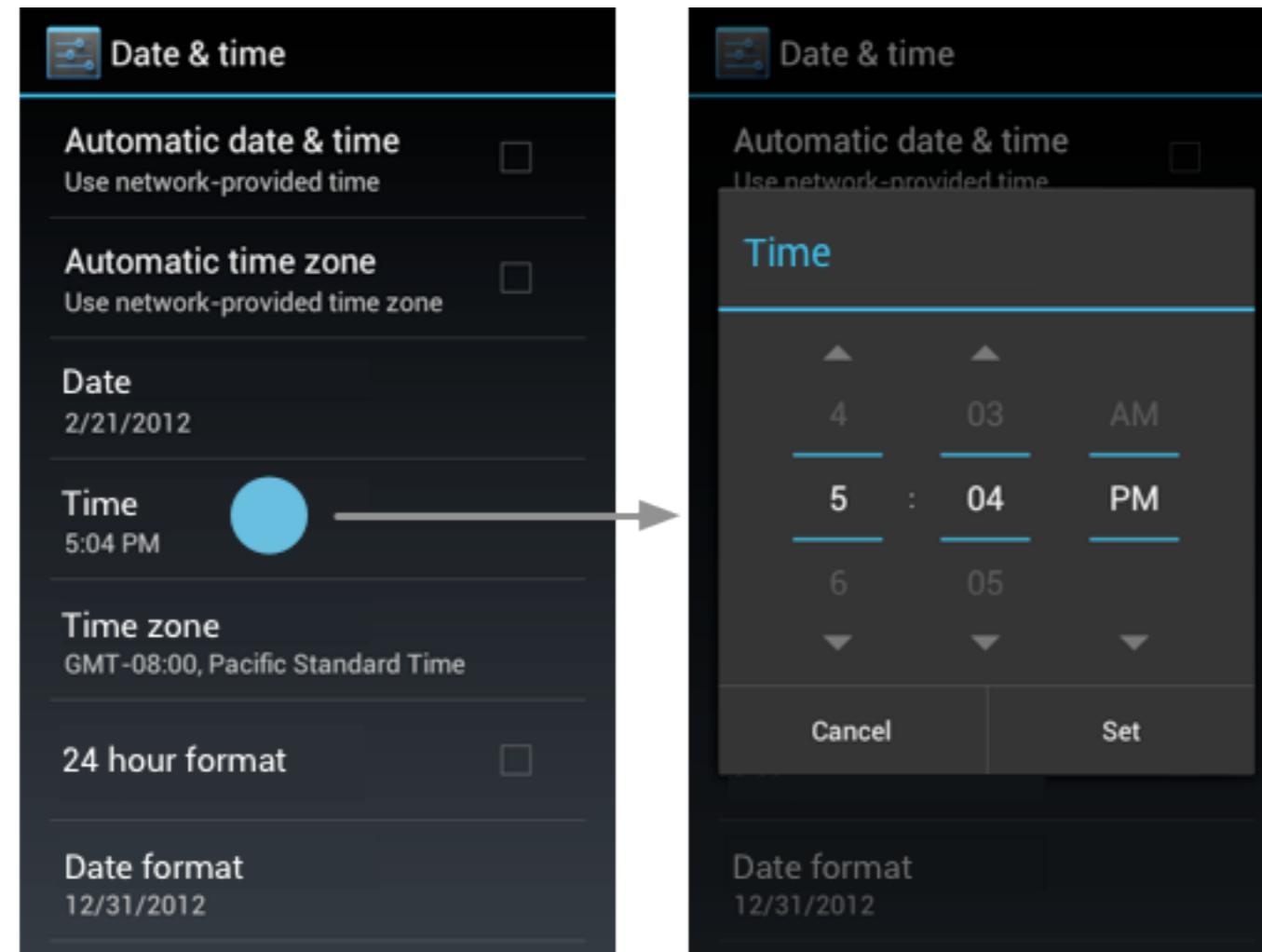
Patrones de Diseño



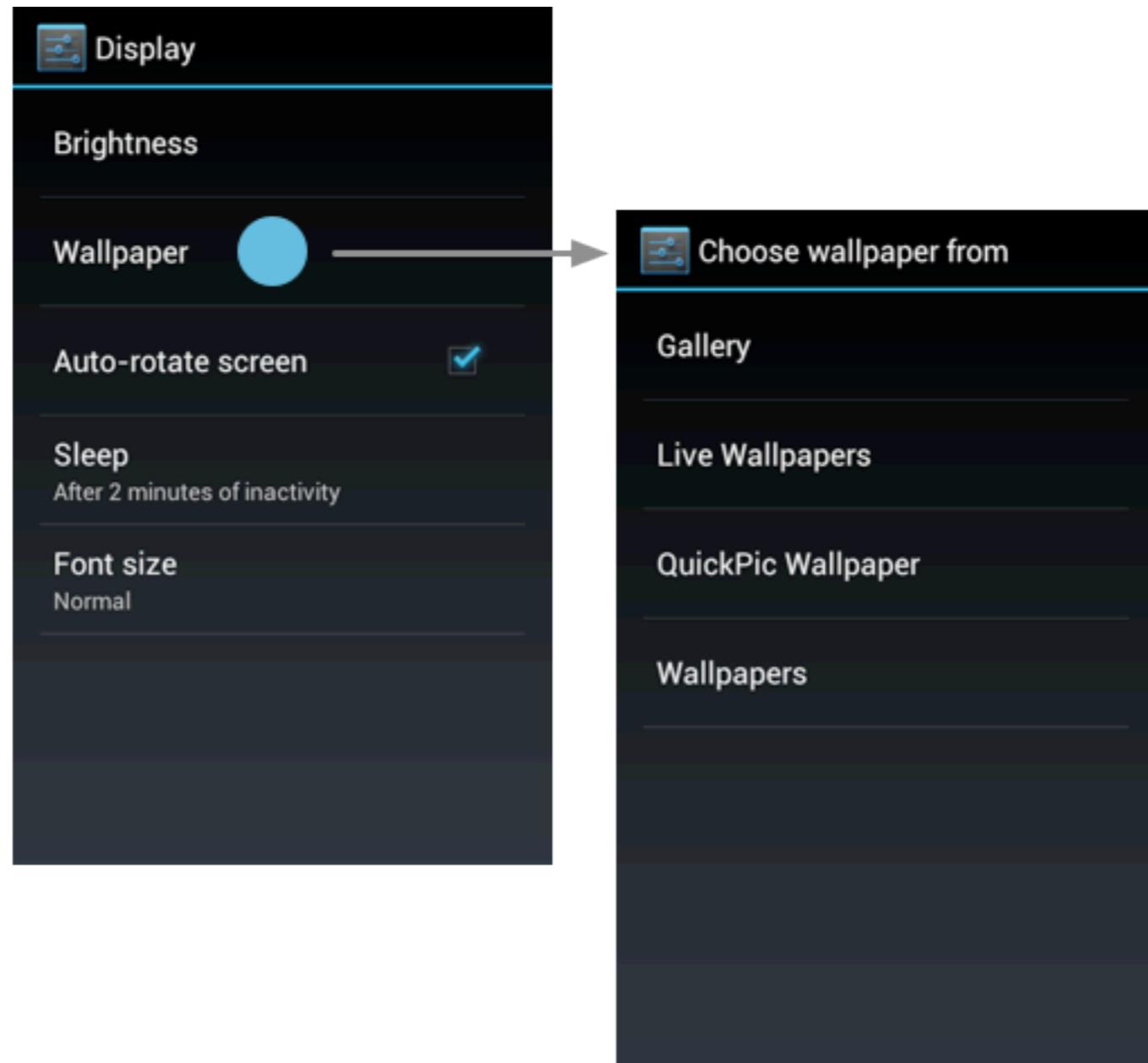
Patrones de Diseño



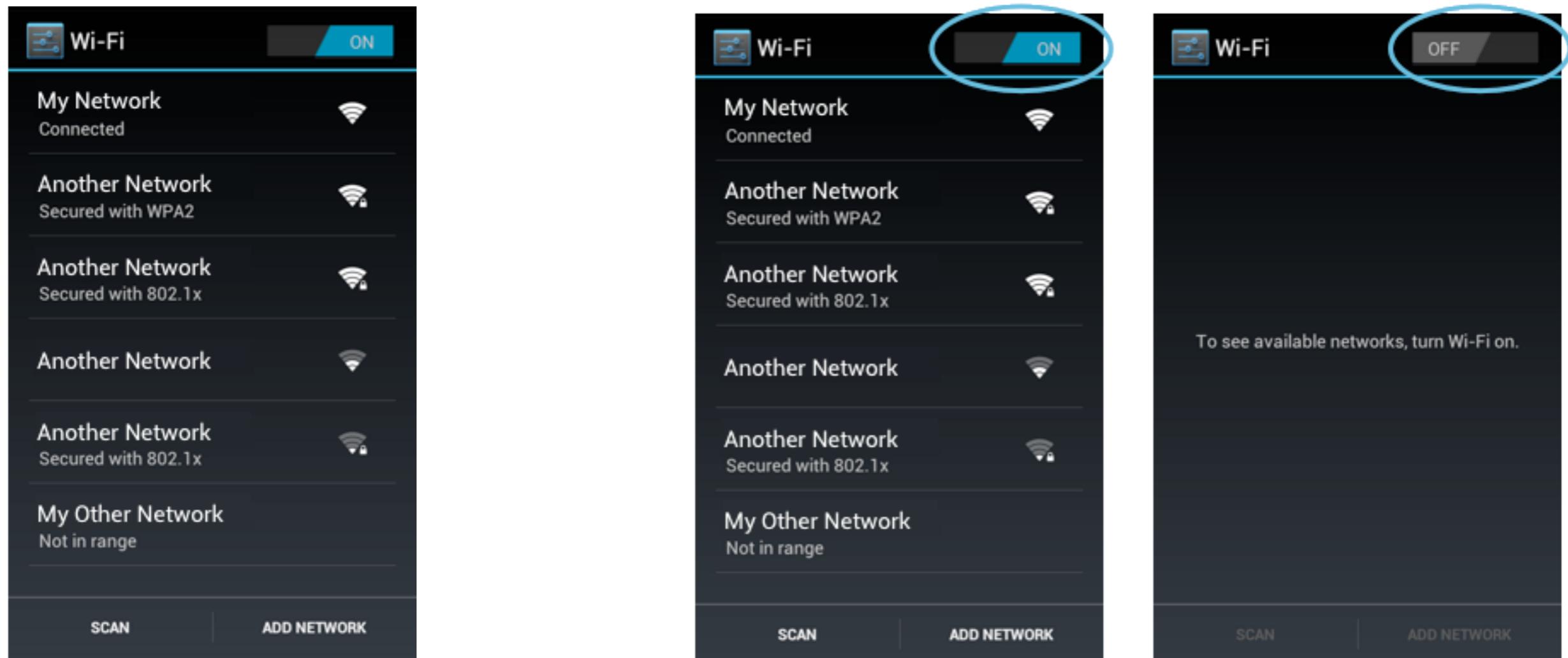
Patrones de Diseño



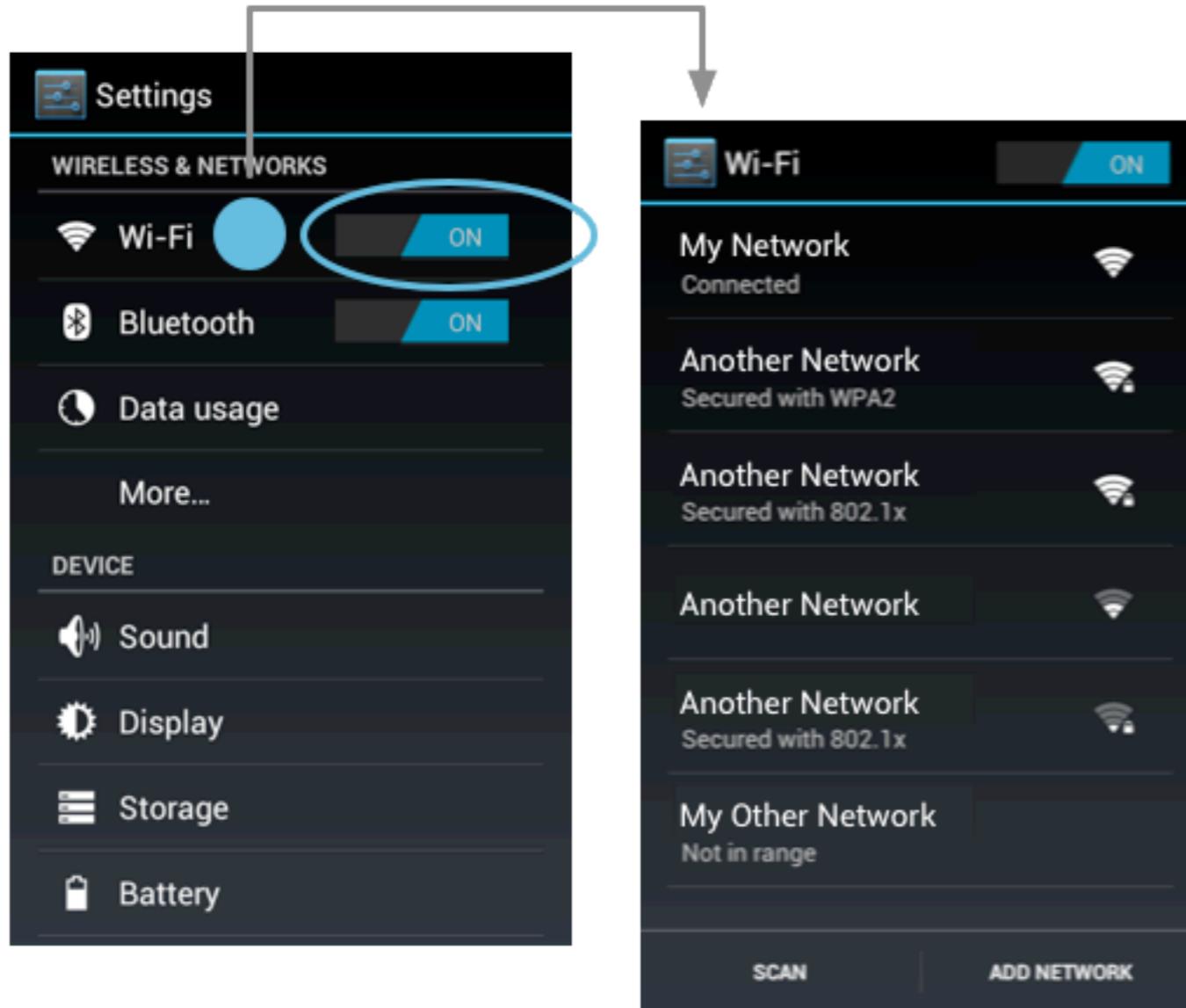
Patrones de Diseño



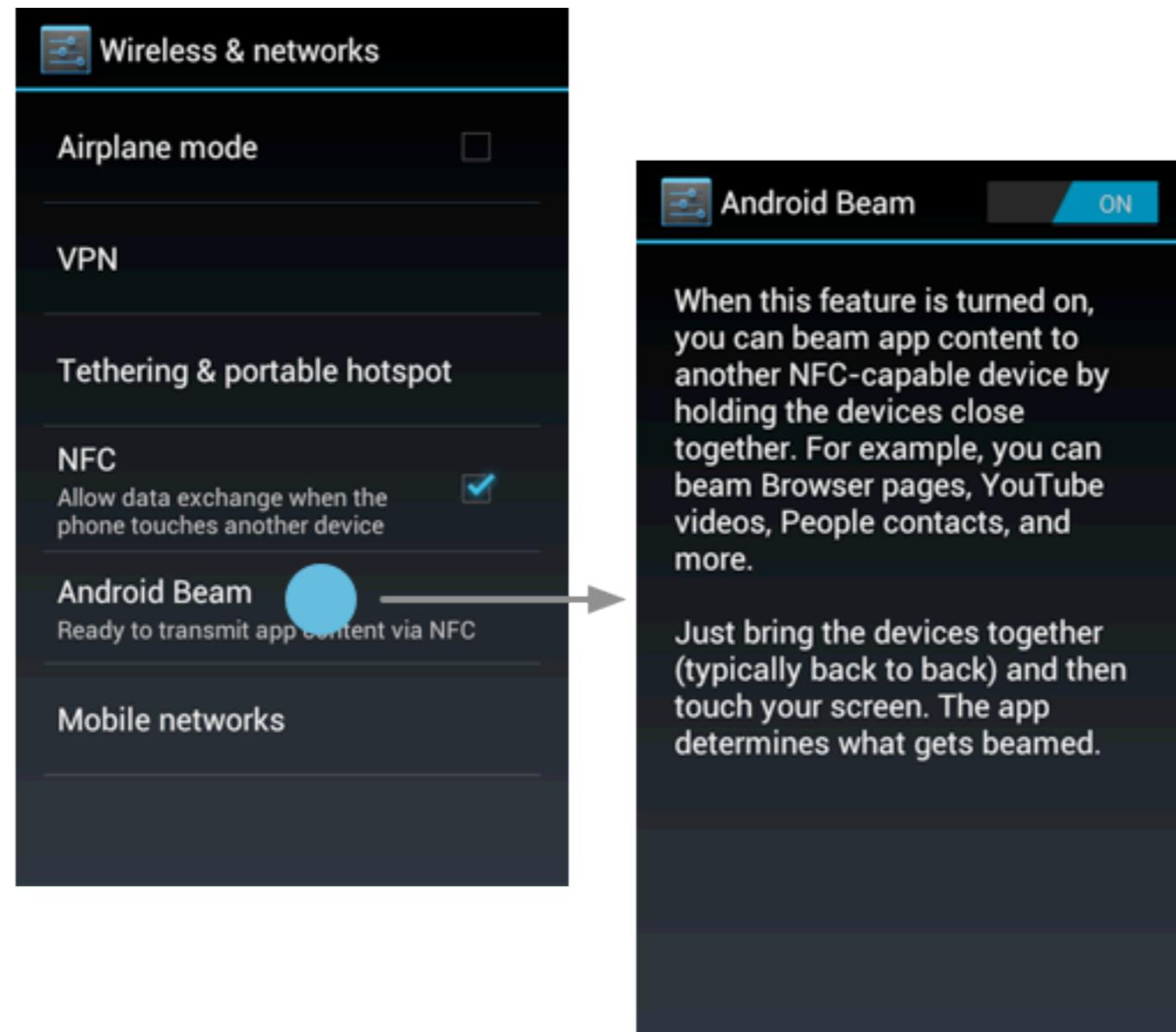
Patrones de Diseño



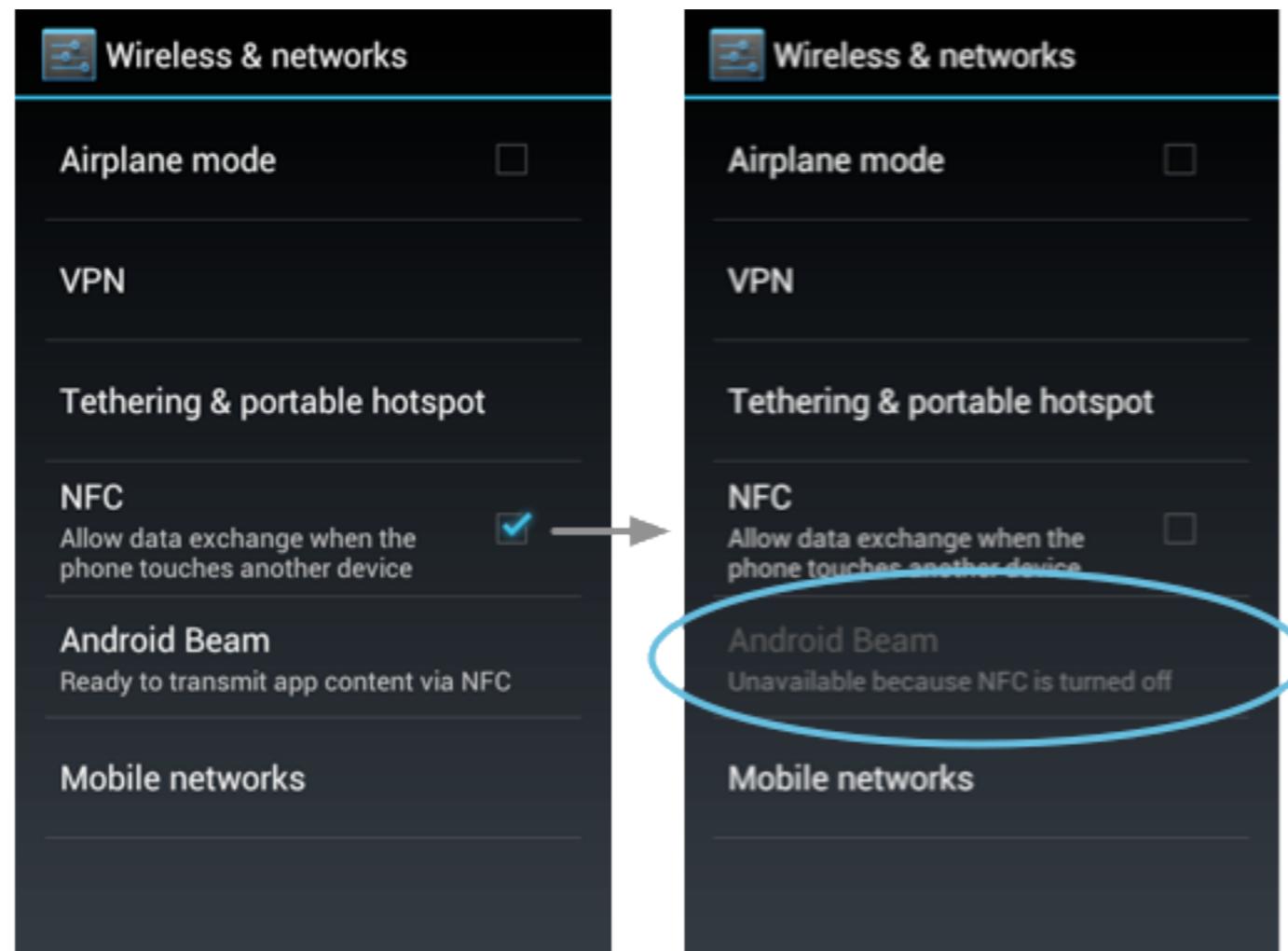
Patrones de Diseño



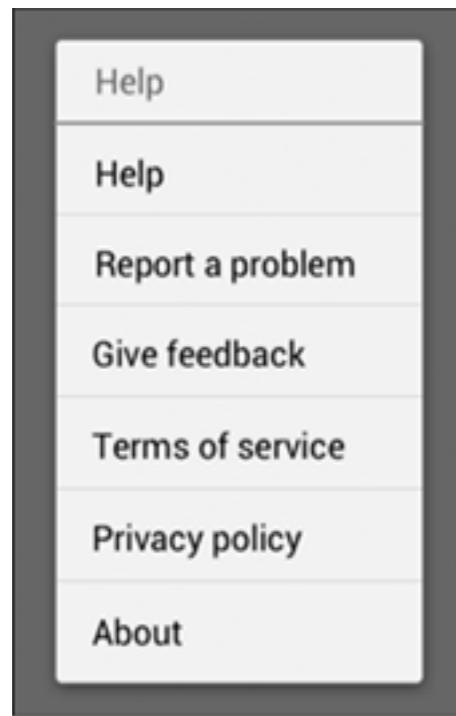
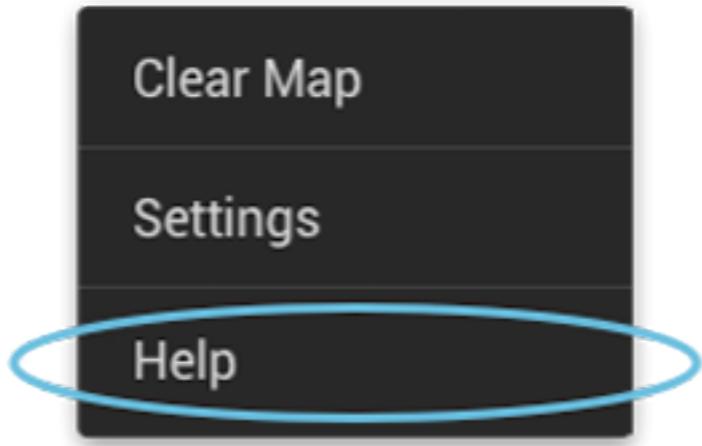
Patrones de Diseño



Patrones de Diseño



Ayuda



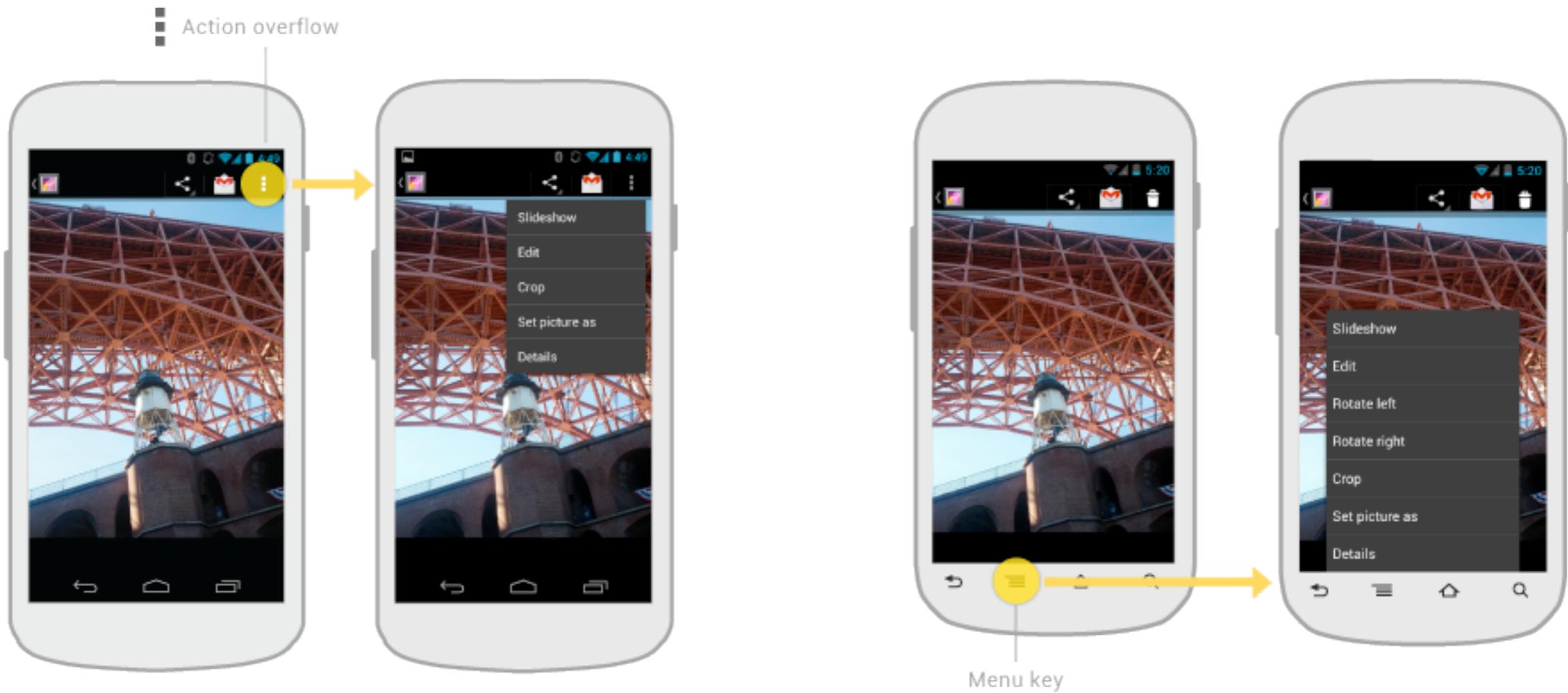
No

Mejor

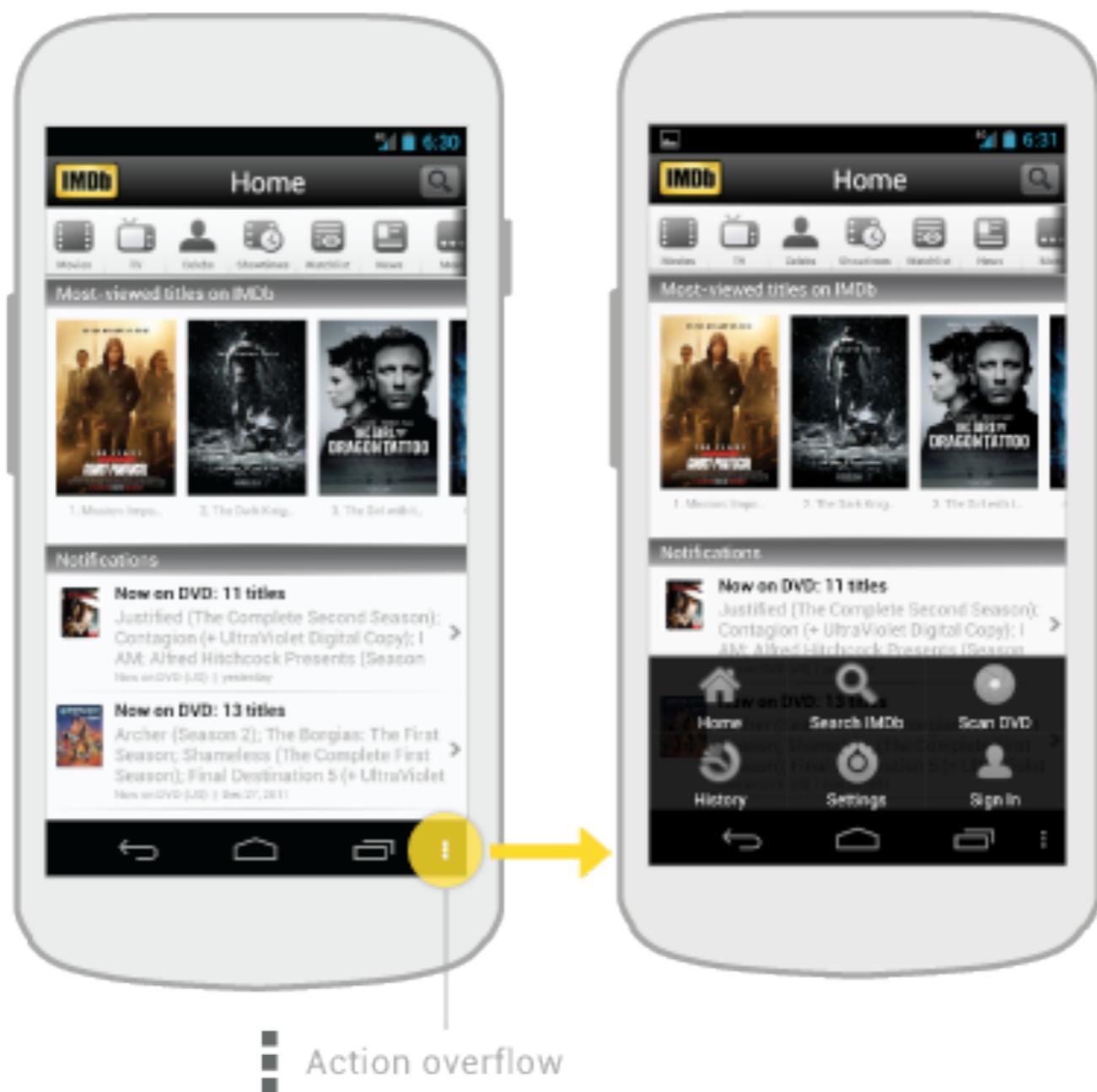
Aún Mejor

Compatibilidad

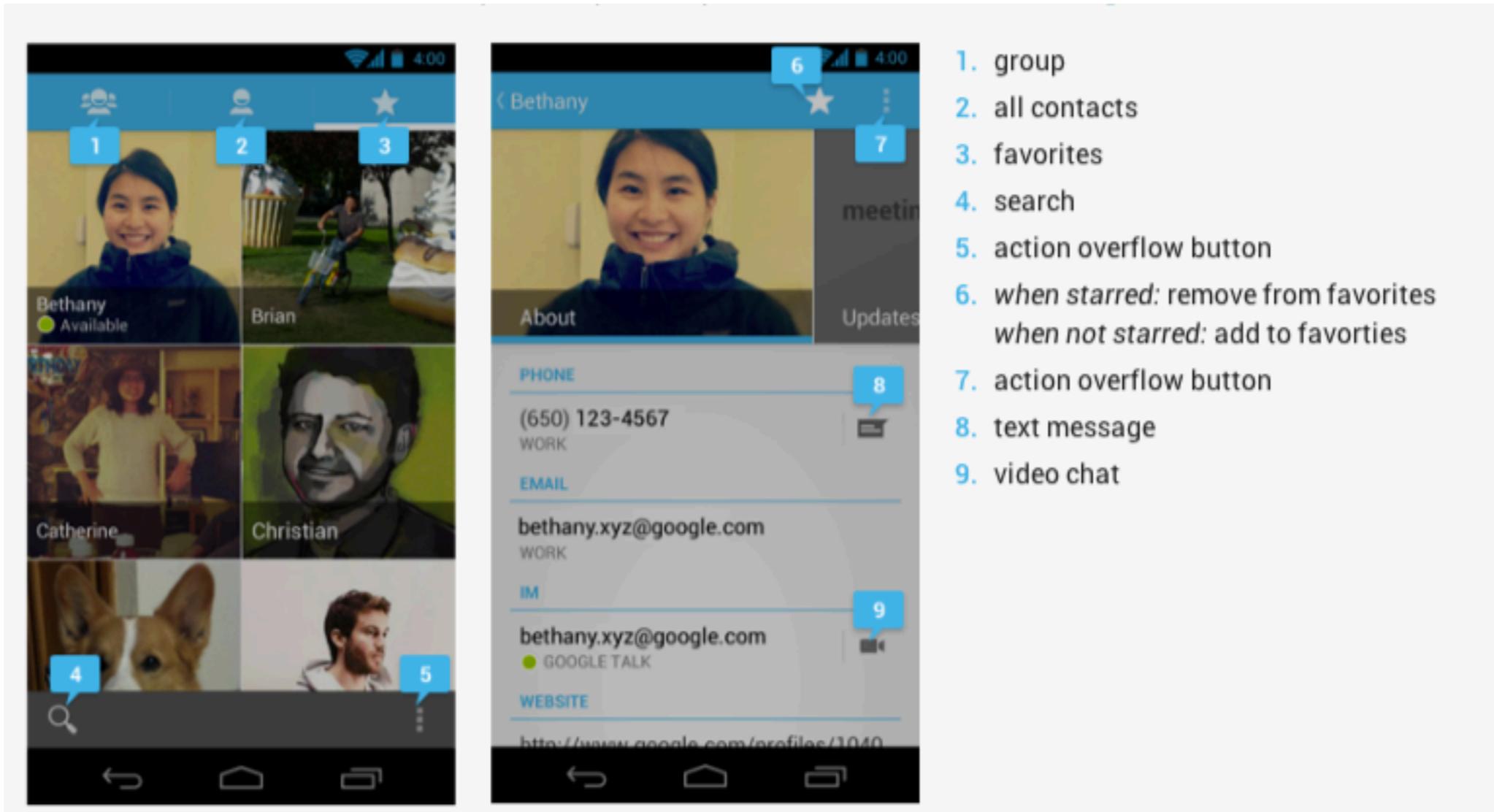
Android 4.0 en viejos equipos



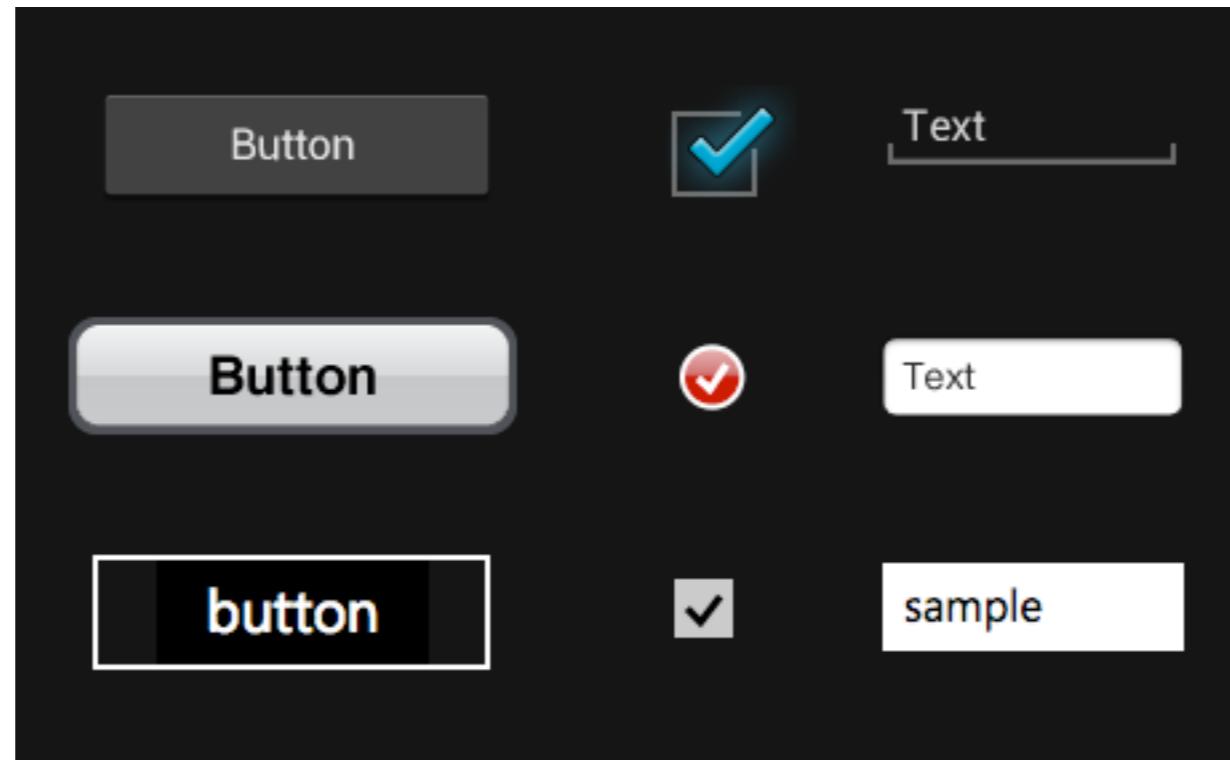
Android 4.0 en viejos equipos



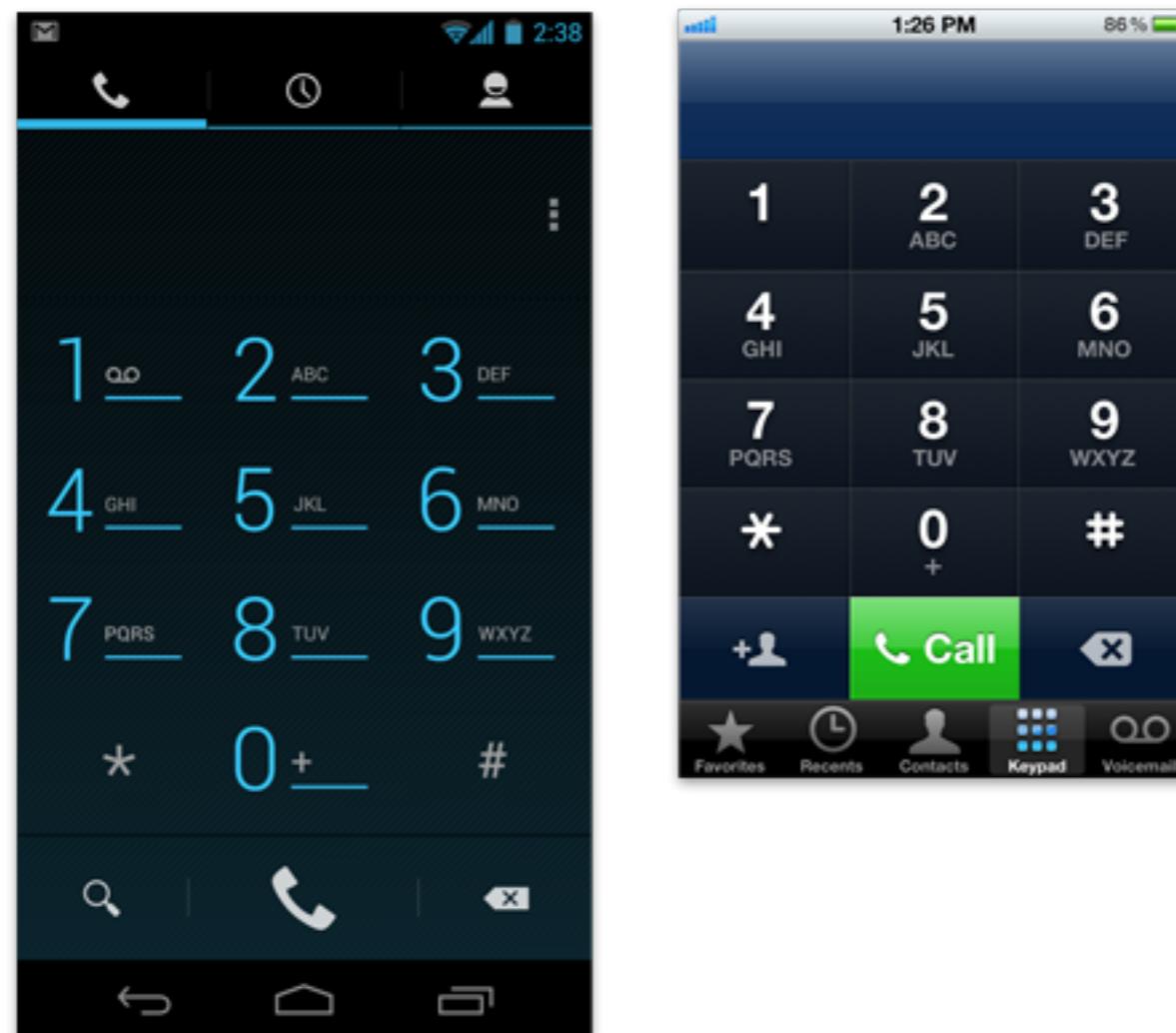
Accesibilidad



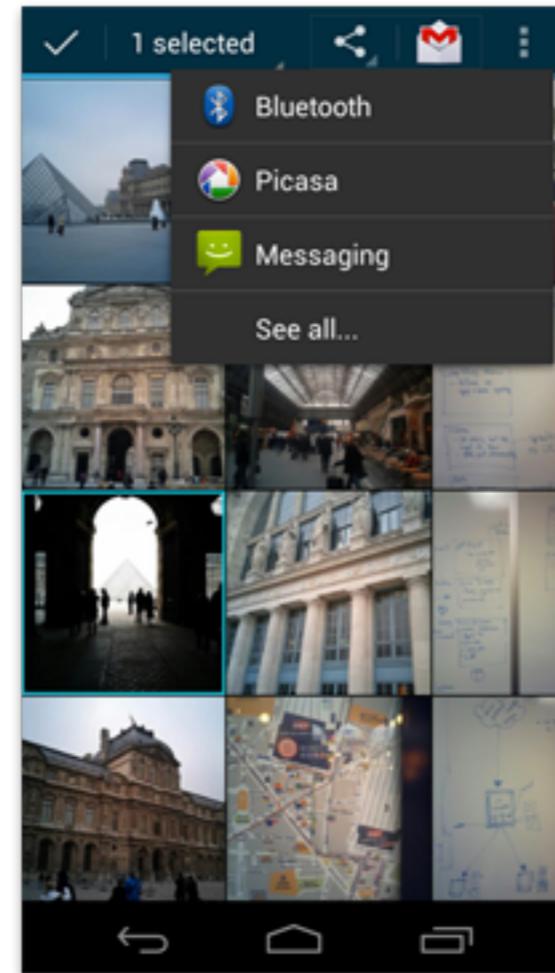
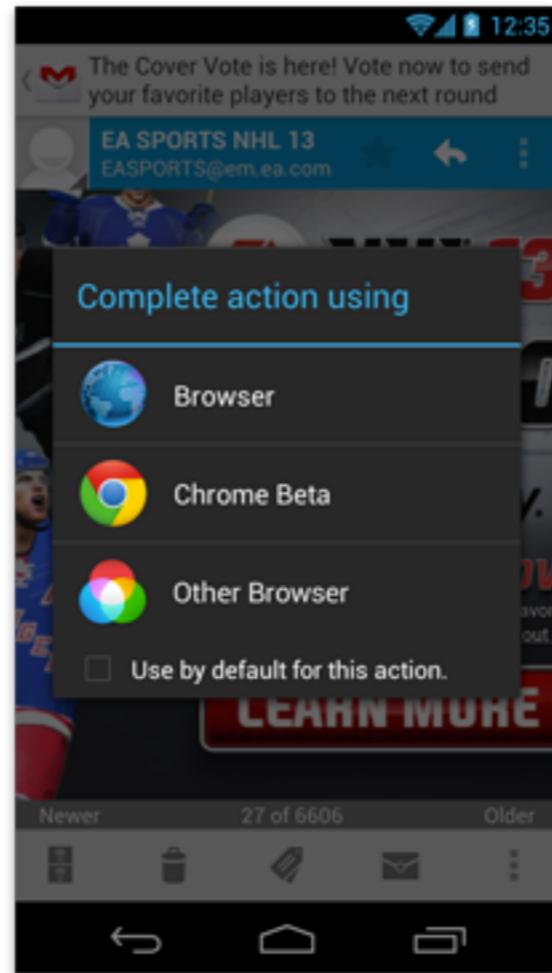
Android puro



Android puro

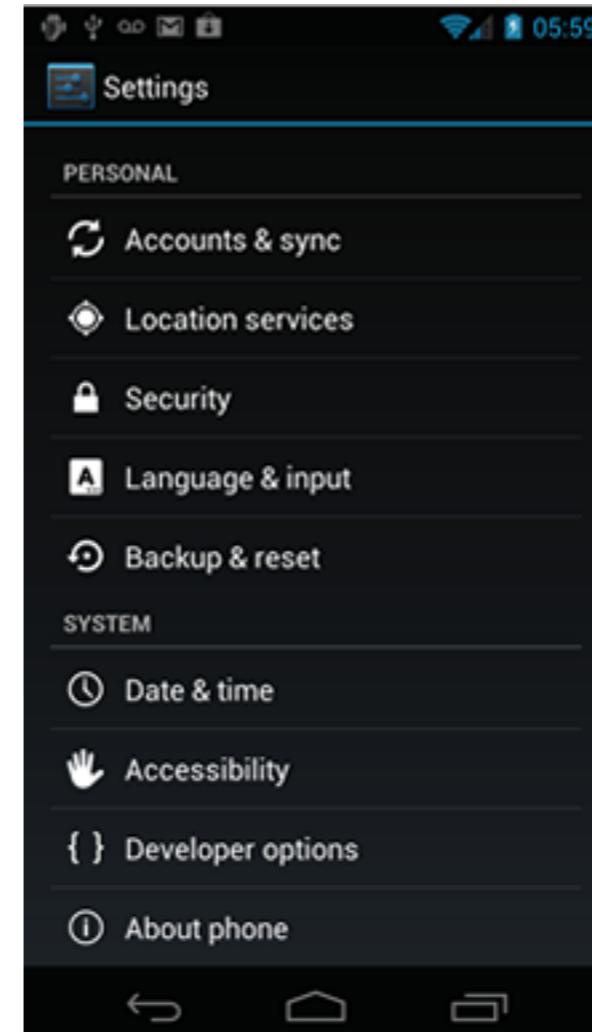


Android puro



No hardcoded links a otras apps

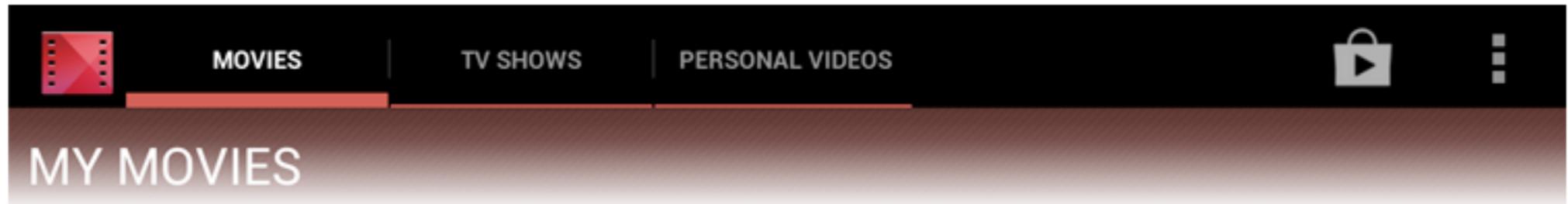
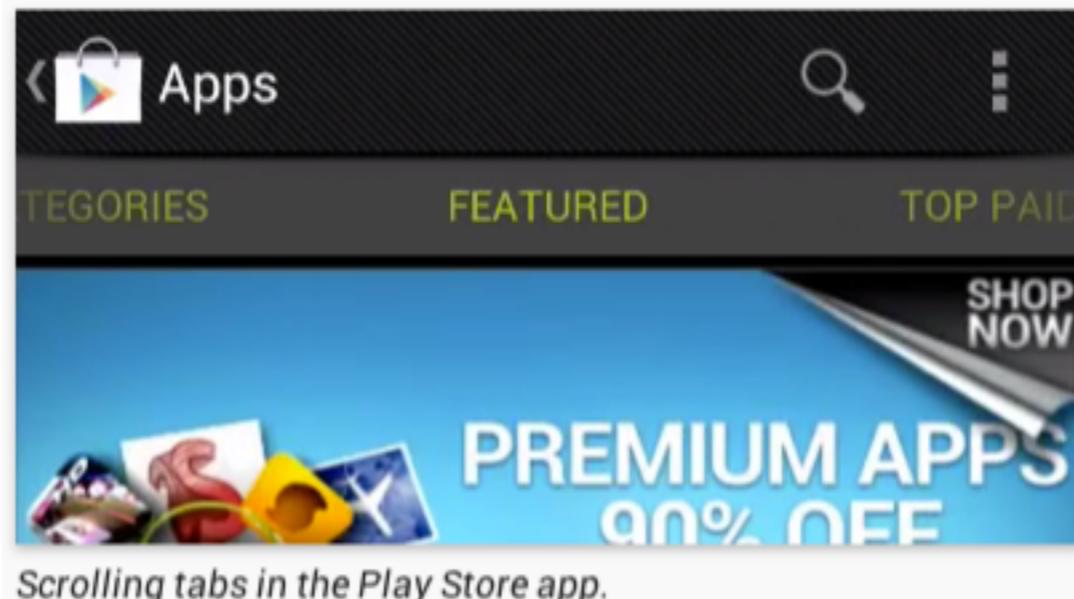
Android puro



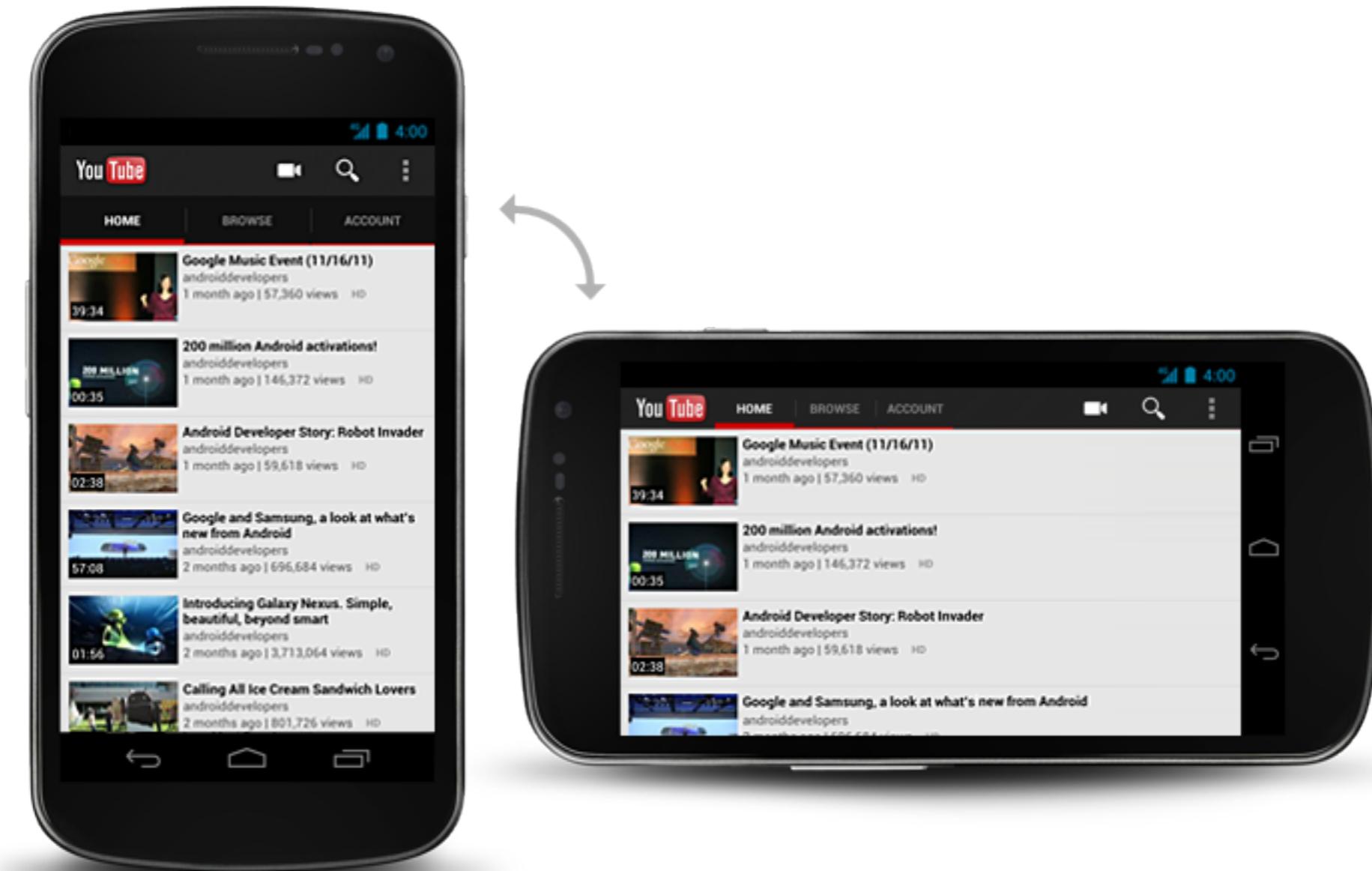
Building Blocks



Tabs



Tabs



Listas

1

SINGLE LINE LIST

List item number one

Second list item

This is the third item

2 LINE LIST

2-Line List

Austin mixtape cosby sweater butcher. Fixie ad vice, brooklyn...



2



Second list item

Assumenda commodo laborum accusamu

3 LINE LIST

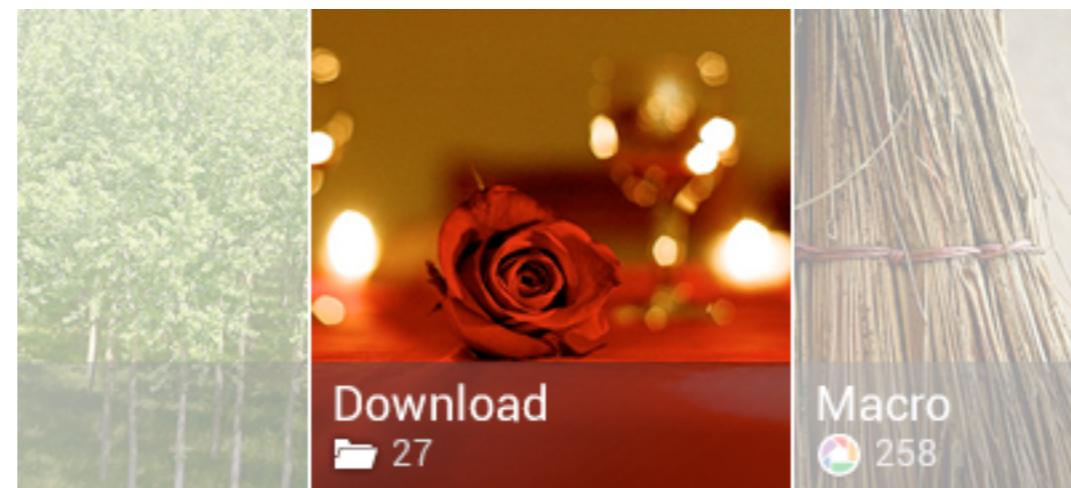
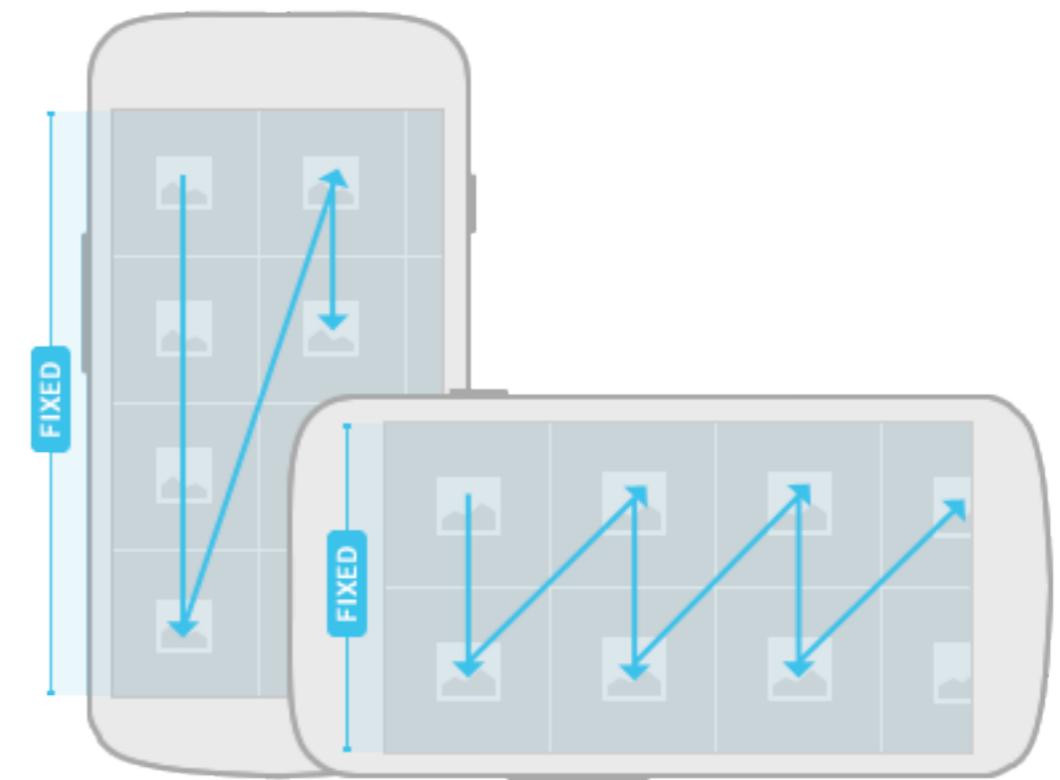
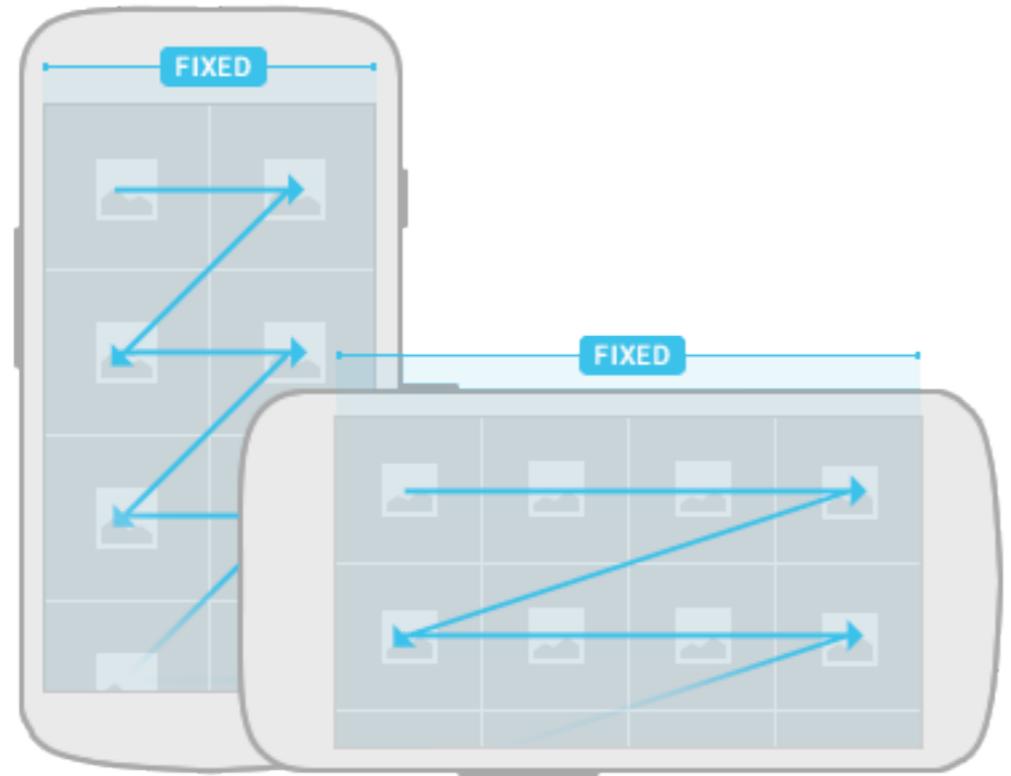
Three line list title

Put a bird on it qui fanny pack, portland irony nisi fap irure.
Donec hendrerit elit nec ligula dapibus

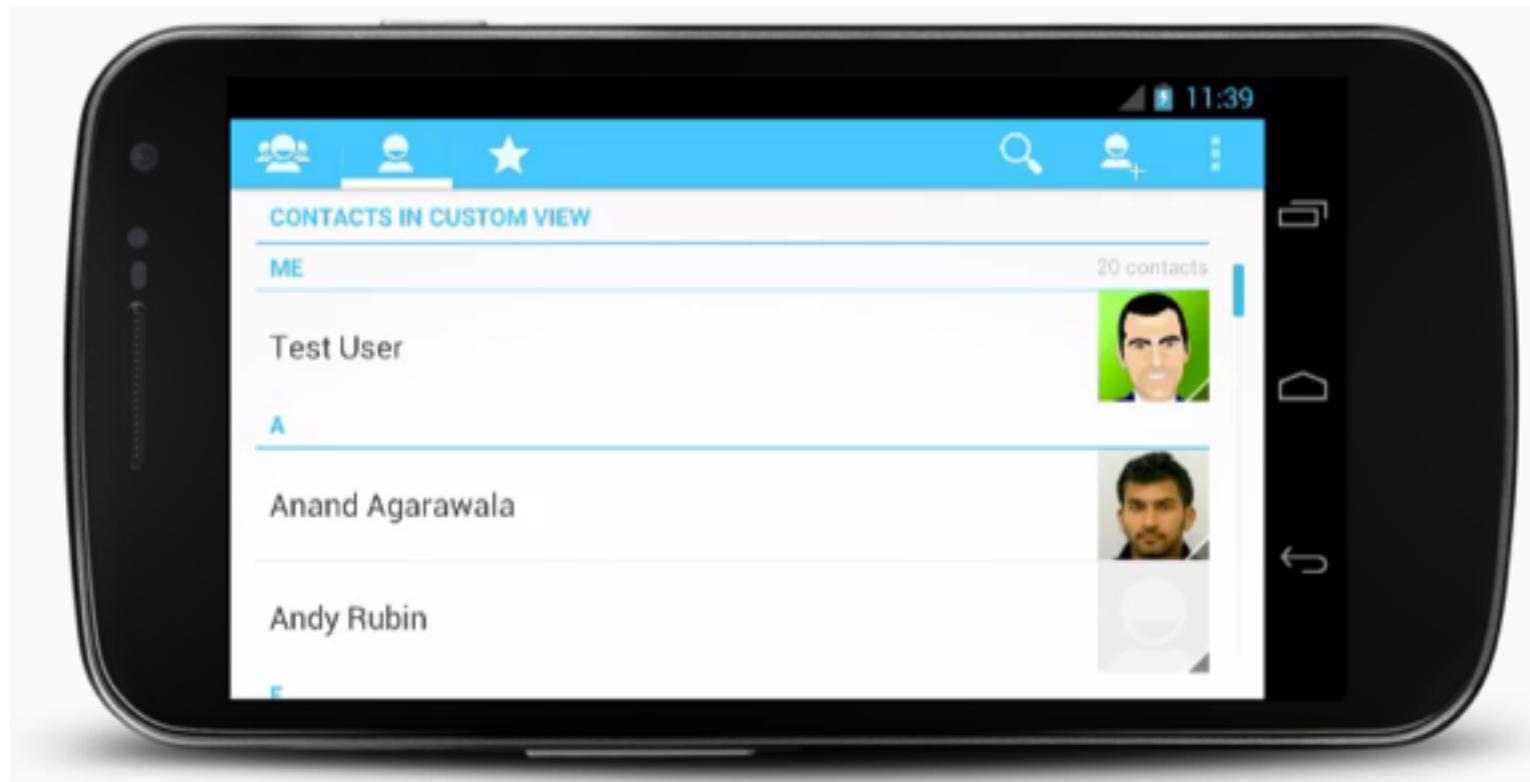
Second row in list

Vinyl laboris lo-fi ethical, adipiscing assumenda beard.
Curabitur gravida quam id orci sodales

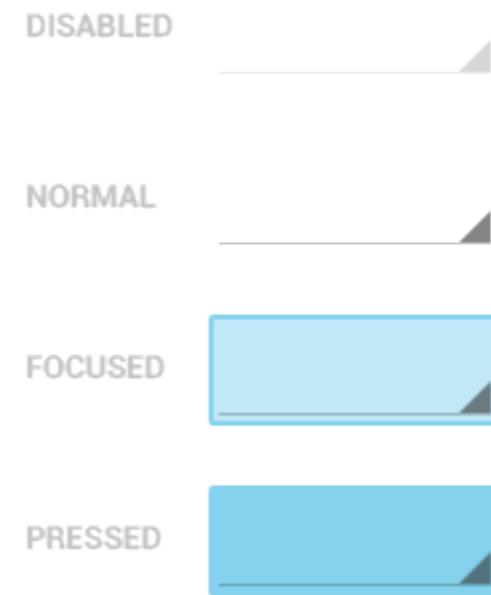
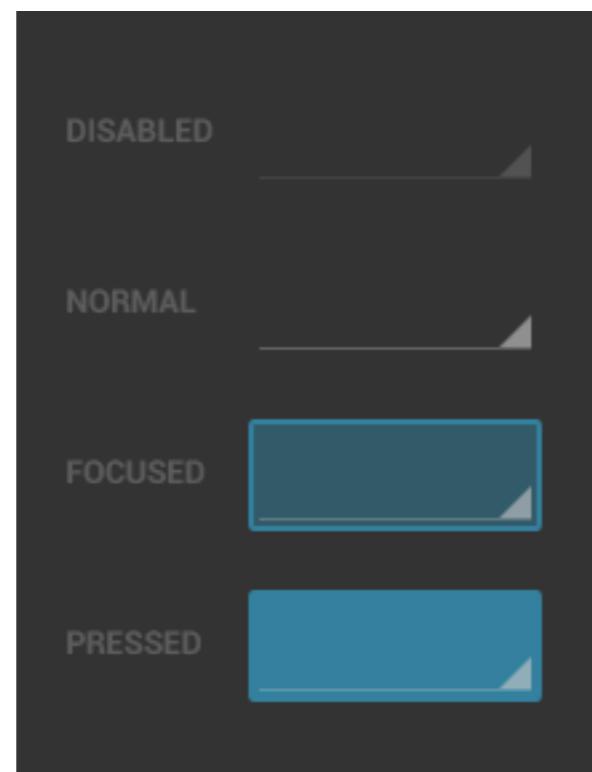
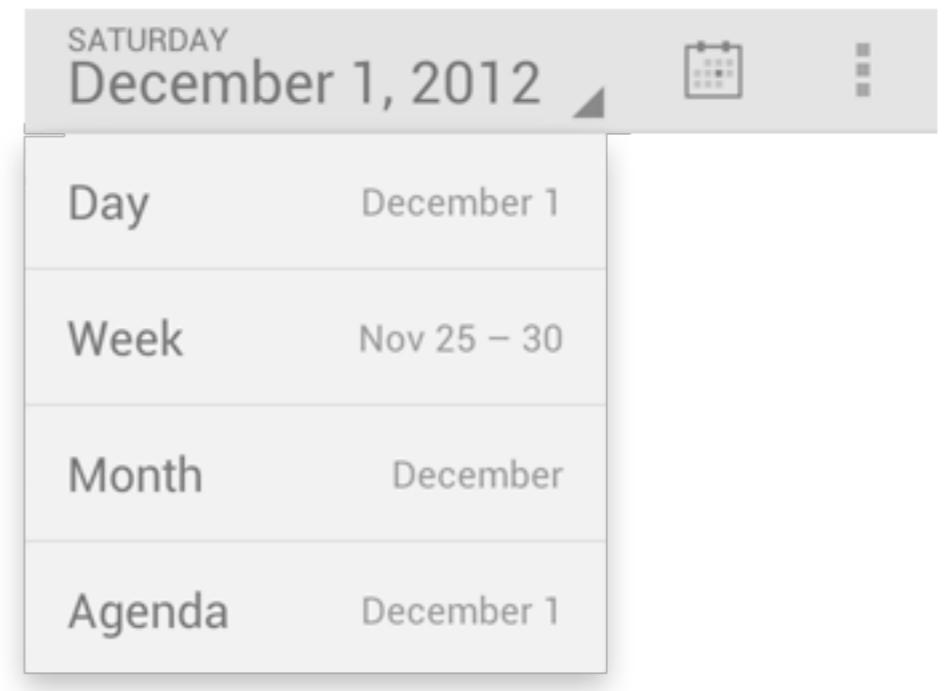
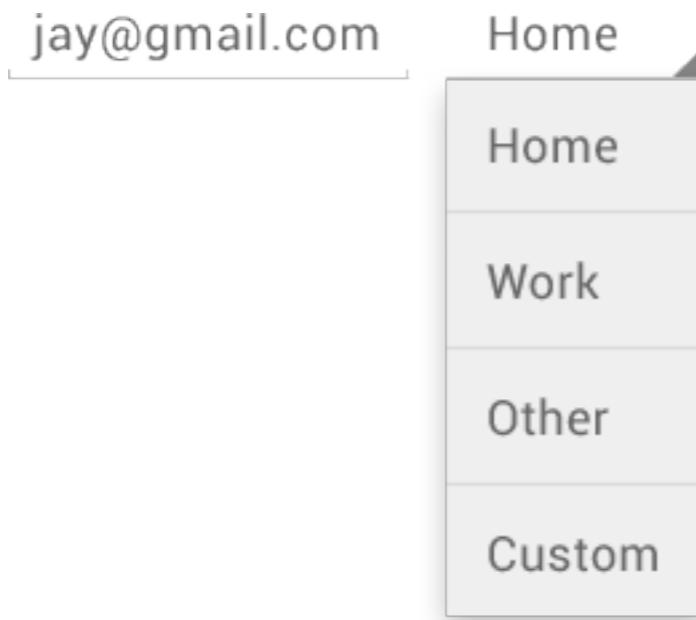
Grid Lists



Grid Lists



Spinners



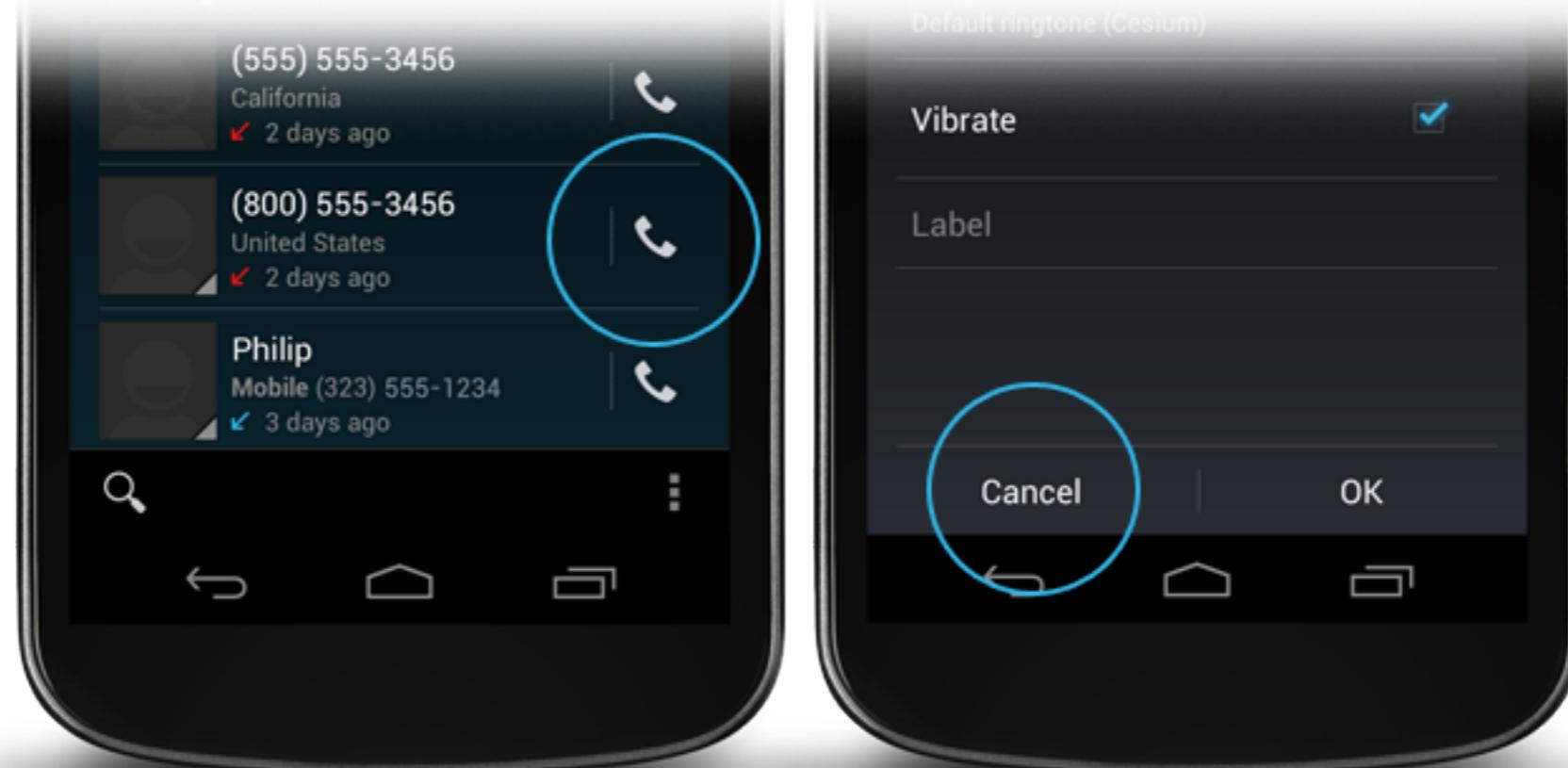
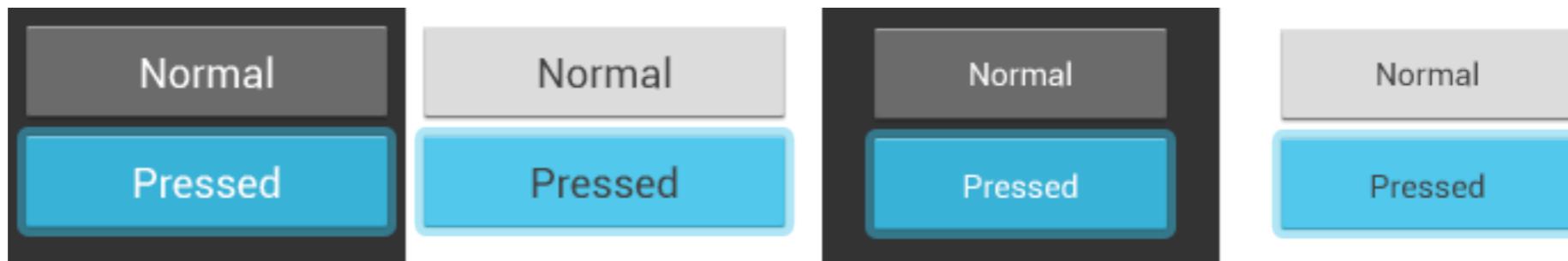
Botones



Icon Icon + Text Text



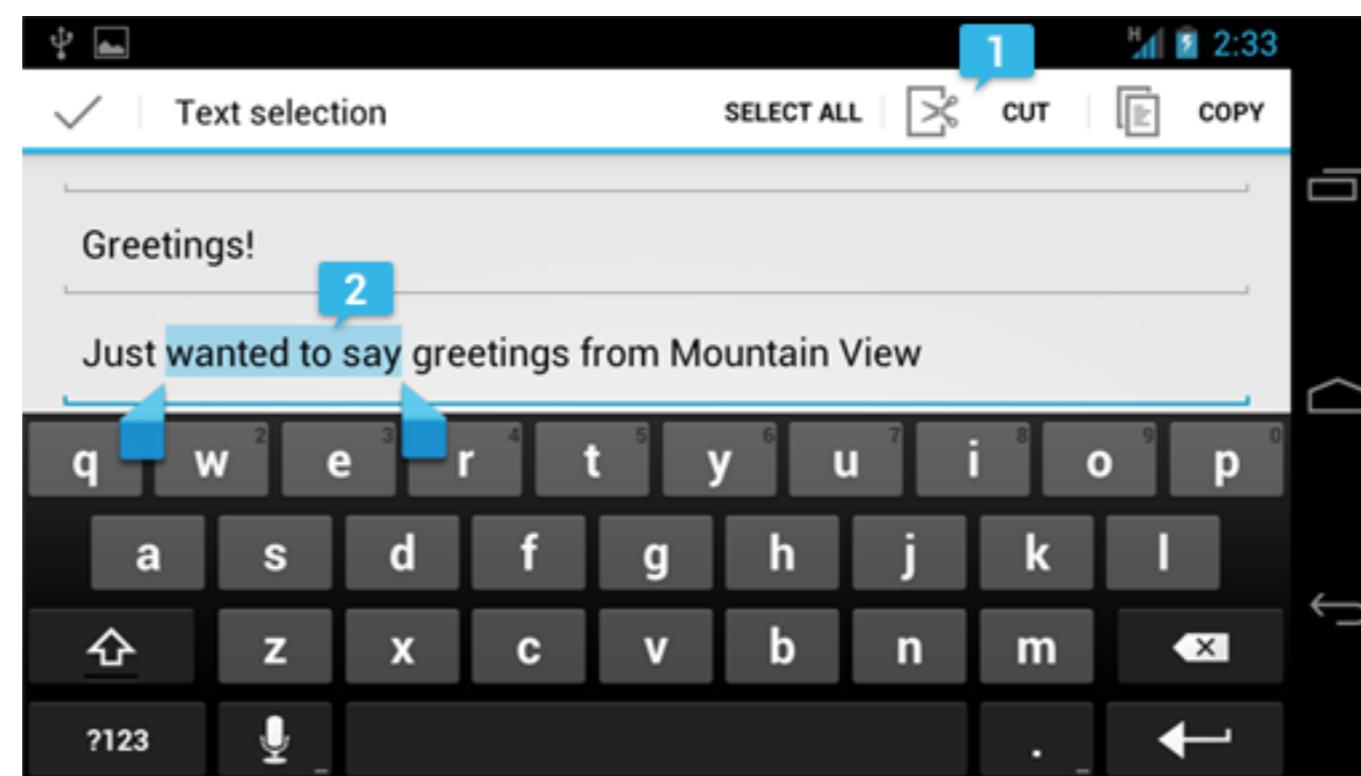
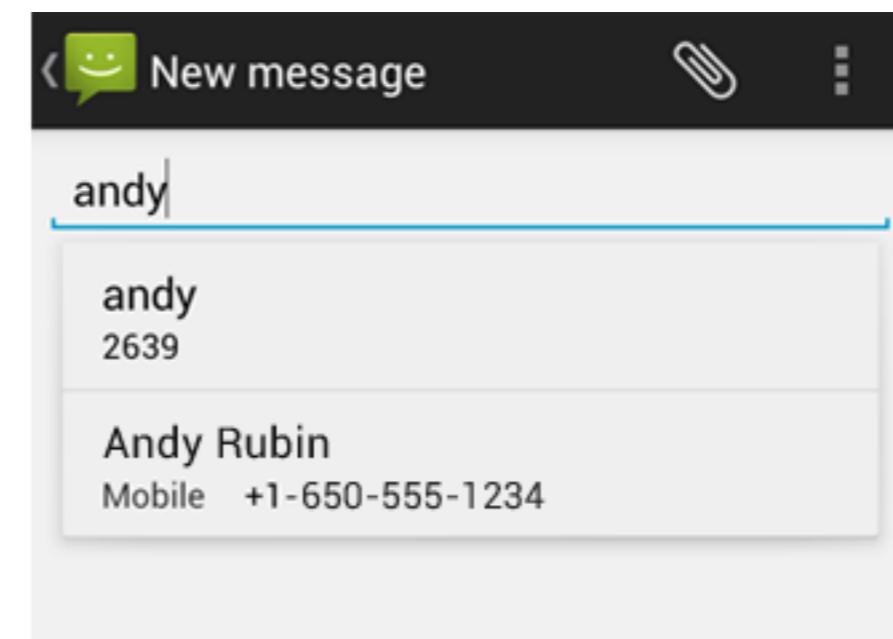
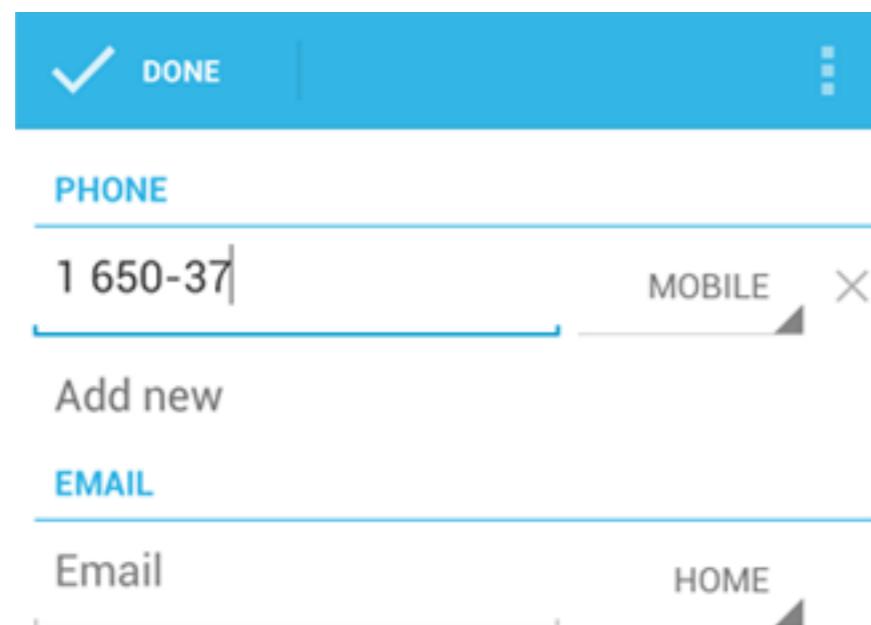
Icon Icon + Text Text



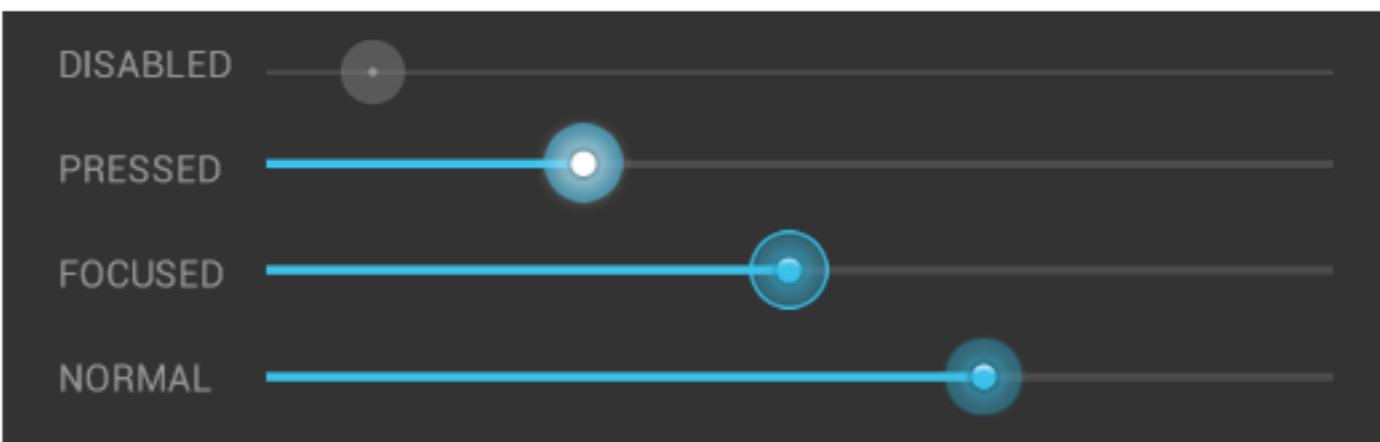
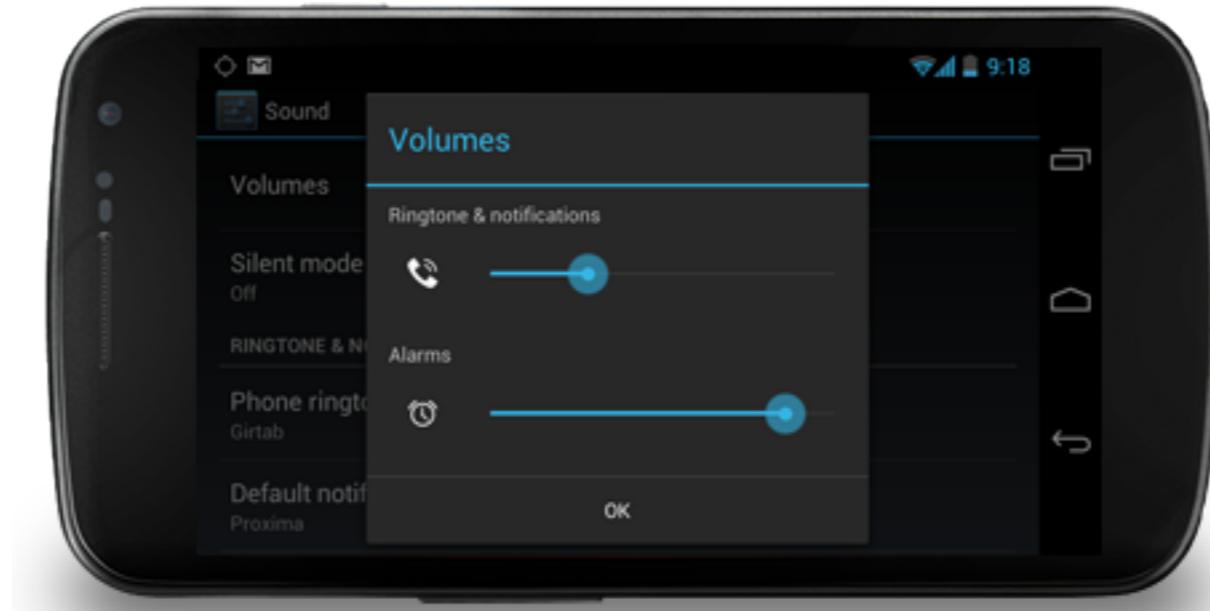
Text fields

Supercalifragilisticexpialidocious

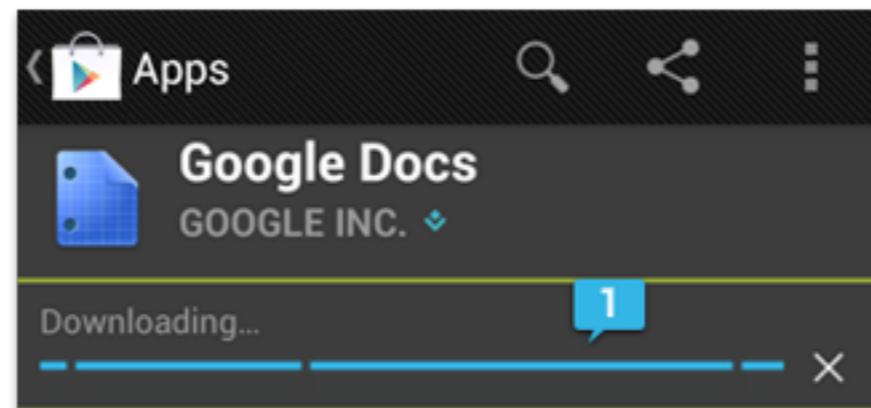
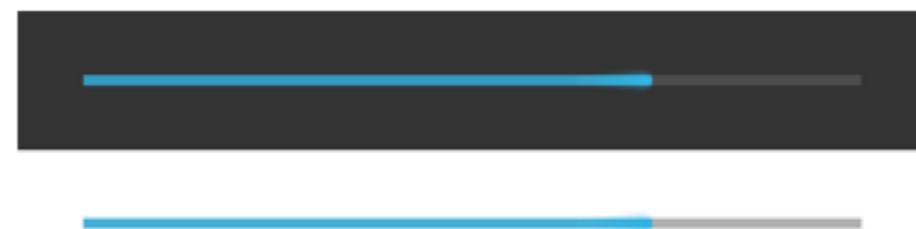
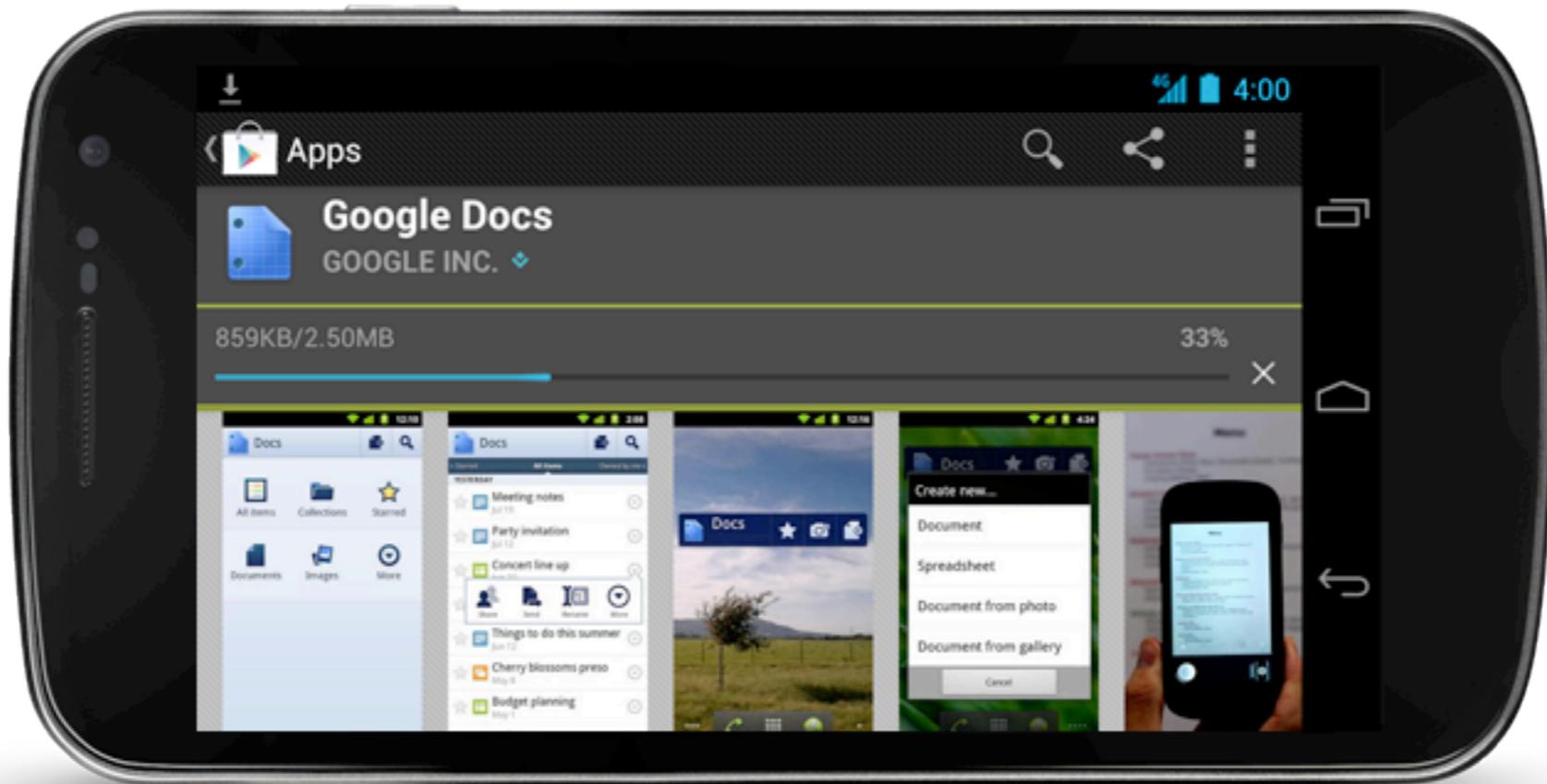
I'll be on my way then. see you tomorrow

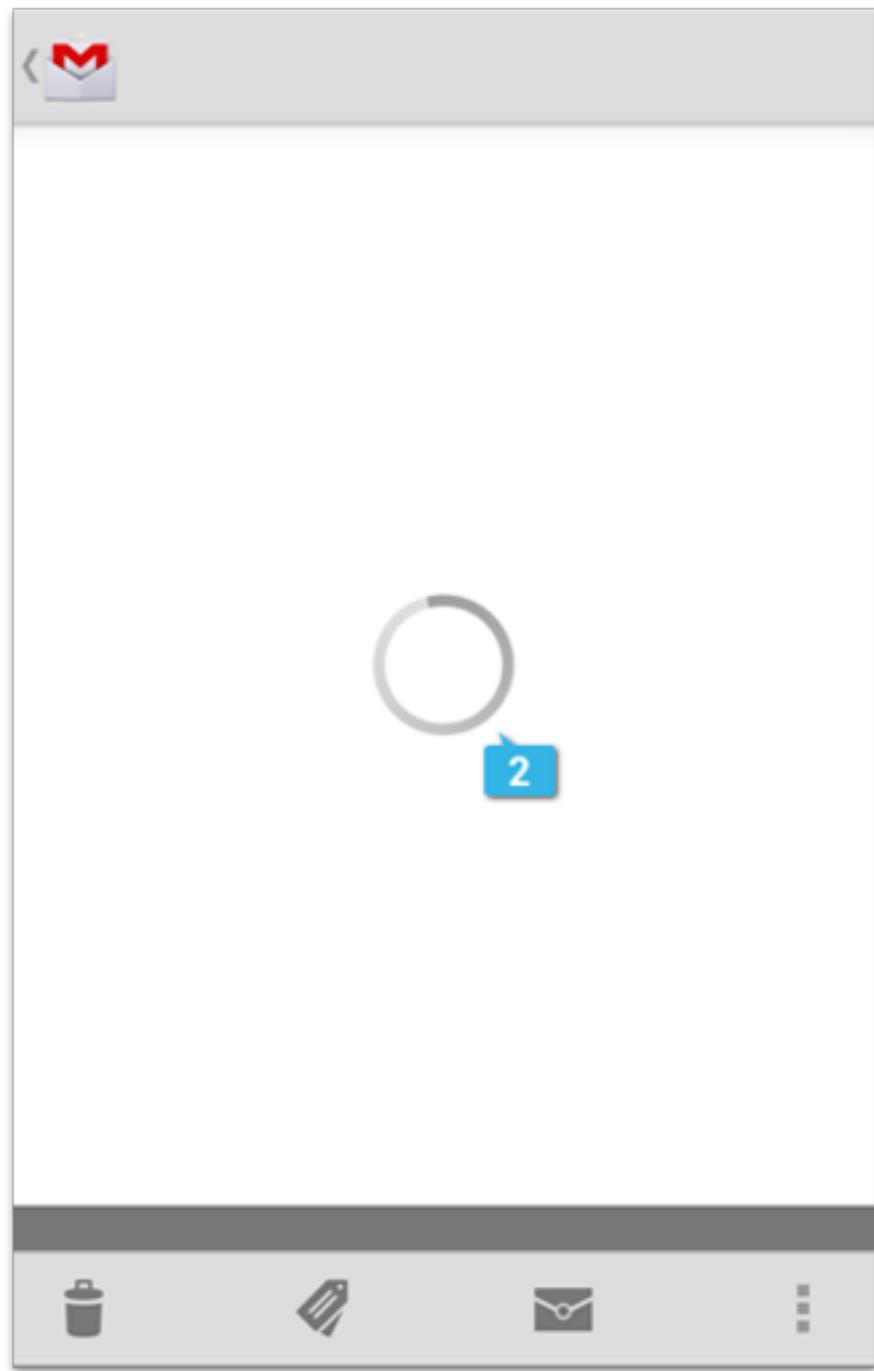


Seek bars



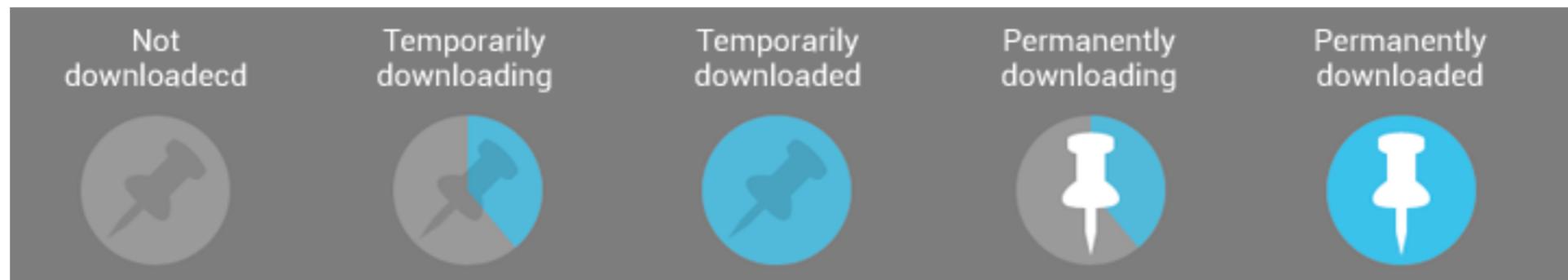
Progress & Activity





○ Loading...

○ Loading...



Jul/Aug 2012 NEW

MOVIES

MY MOVIES

TRANSFORMERS
Dark of the Moon

Transformers: Dark of the Moon
2011, 154 mins.

10%

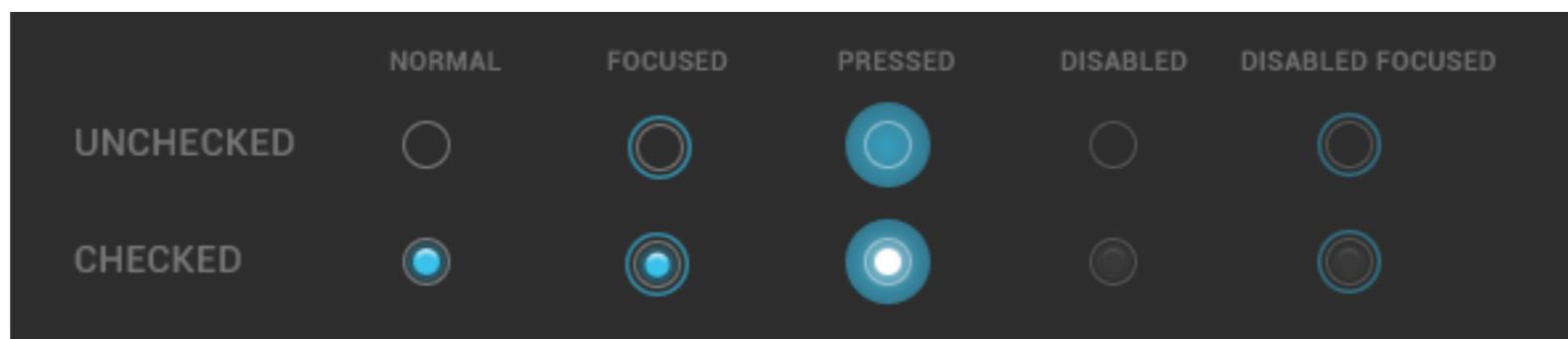
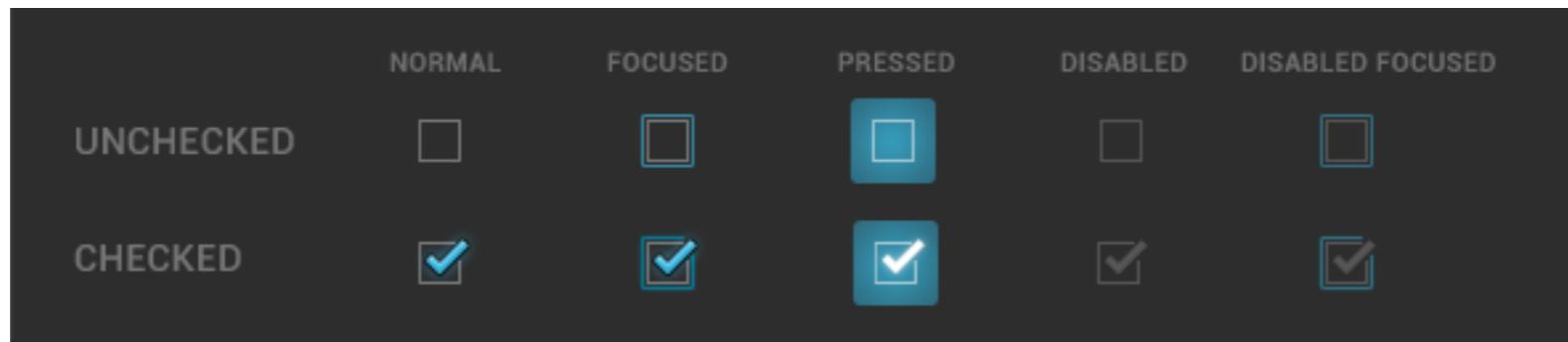
SUGGESTIONS

AMERICAN REUNION

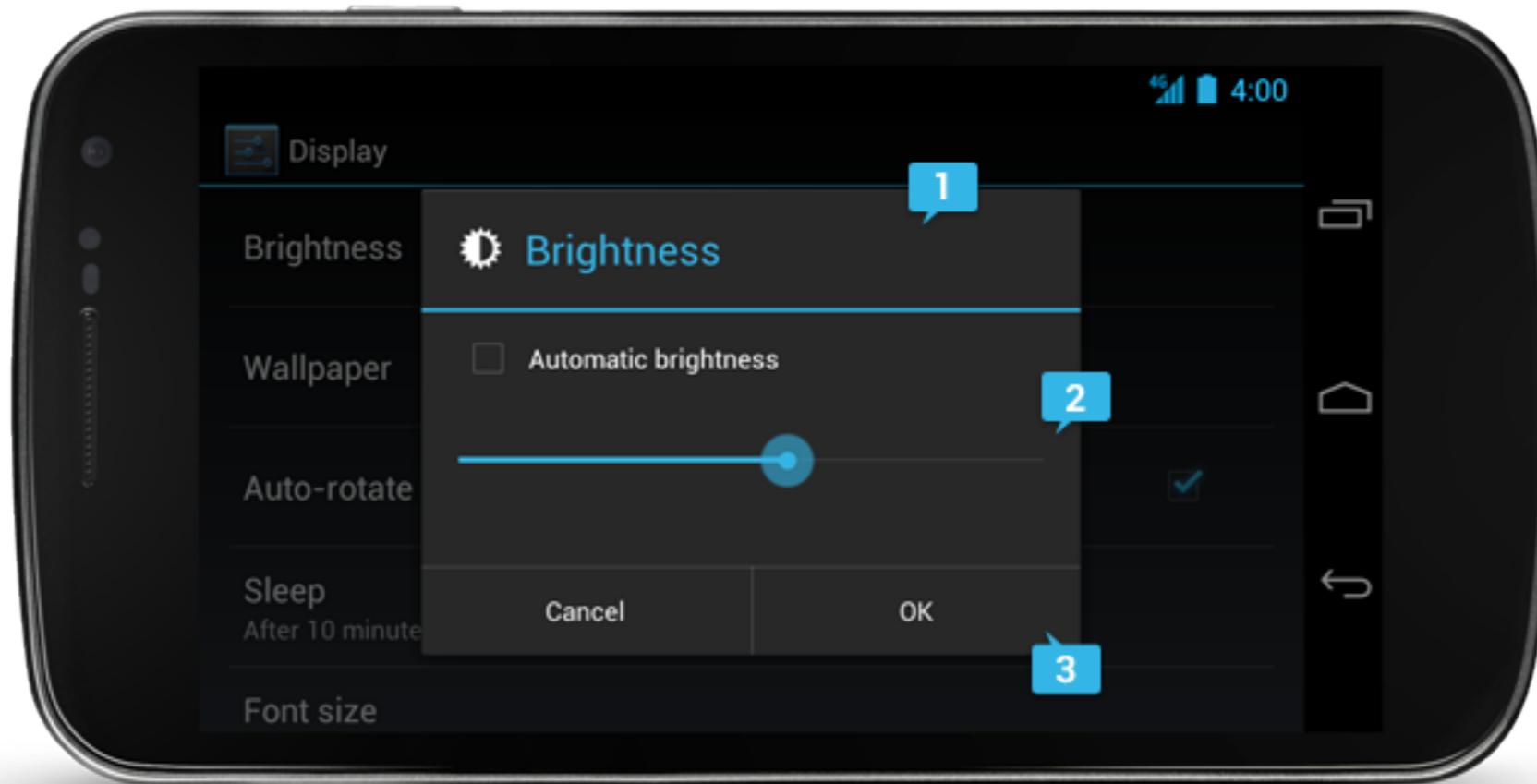
American Reunion ('12)
2012, 112 mins.
Get ready for "flat-out hilarious, raunchy fun" (Box Office Magazine) as the whole American Pie gang returns to

21 JUMP STREET

Switches



Dialogs



Choose ringtone

Default ringtone	<input checked="" type="radio"/>
Silent	<input type="radio"/>
Aldebaran	<input type="radio"/>
Altair	<input type="radio"/>
Antares	<input type="radio"/>
Arcturus	<input type="radio"/>
Betelgeuse	<input type="radio"/>
Canopus	<input type="radio"/>

Cancel OK

Text message limit

Set number of messages to save:

▲ 499
500
▼ 501

Cancel Set

Playlist name

Playlist 1

Cancel OK

Alertas

Unfortunately, the process com.
android.phone has stopped.

Report

OK



Erase USB storage?

You'll lose all photos and media!

Cancel

Erase

Don't

Don't

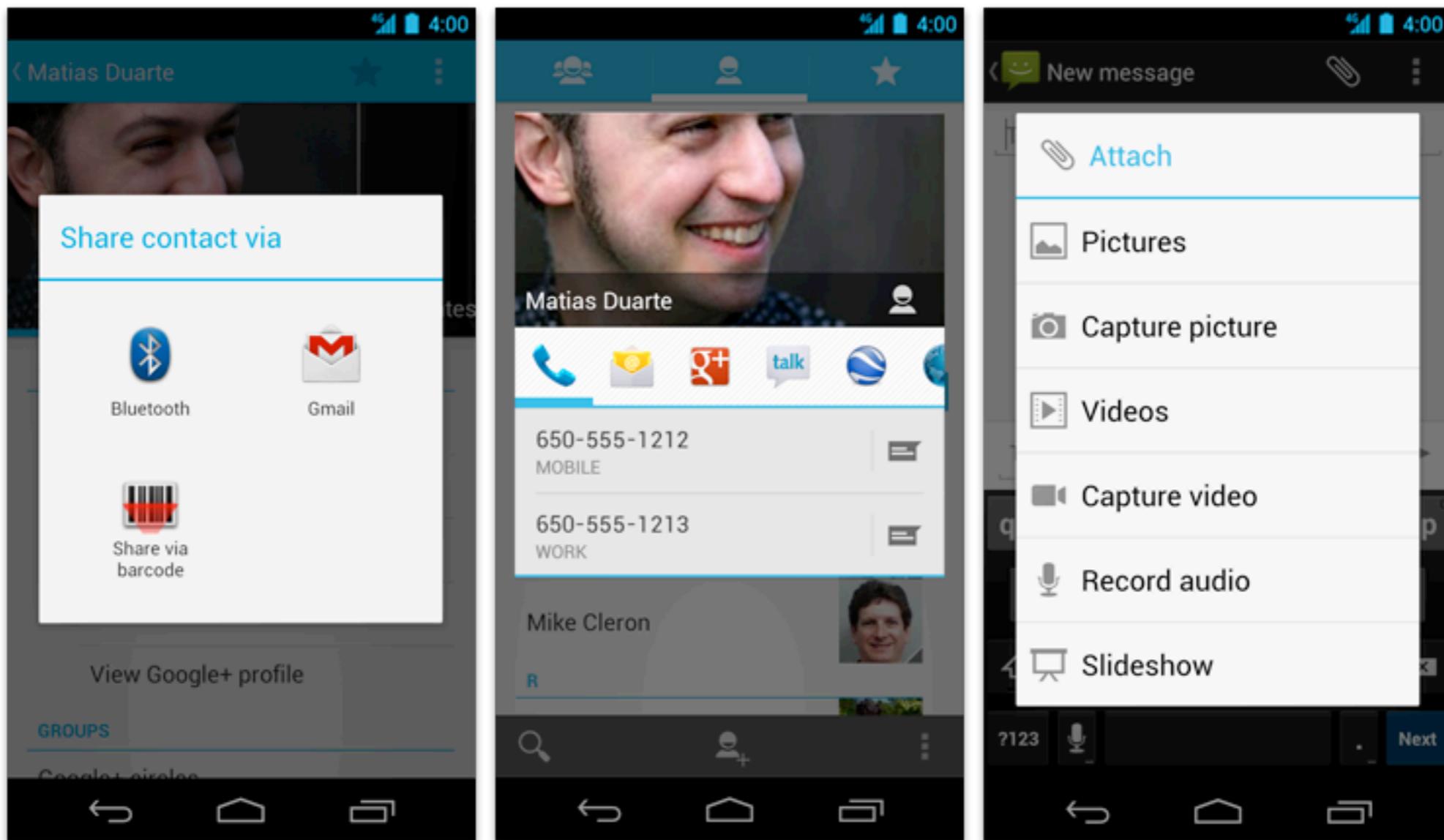
Do

Are you sure?

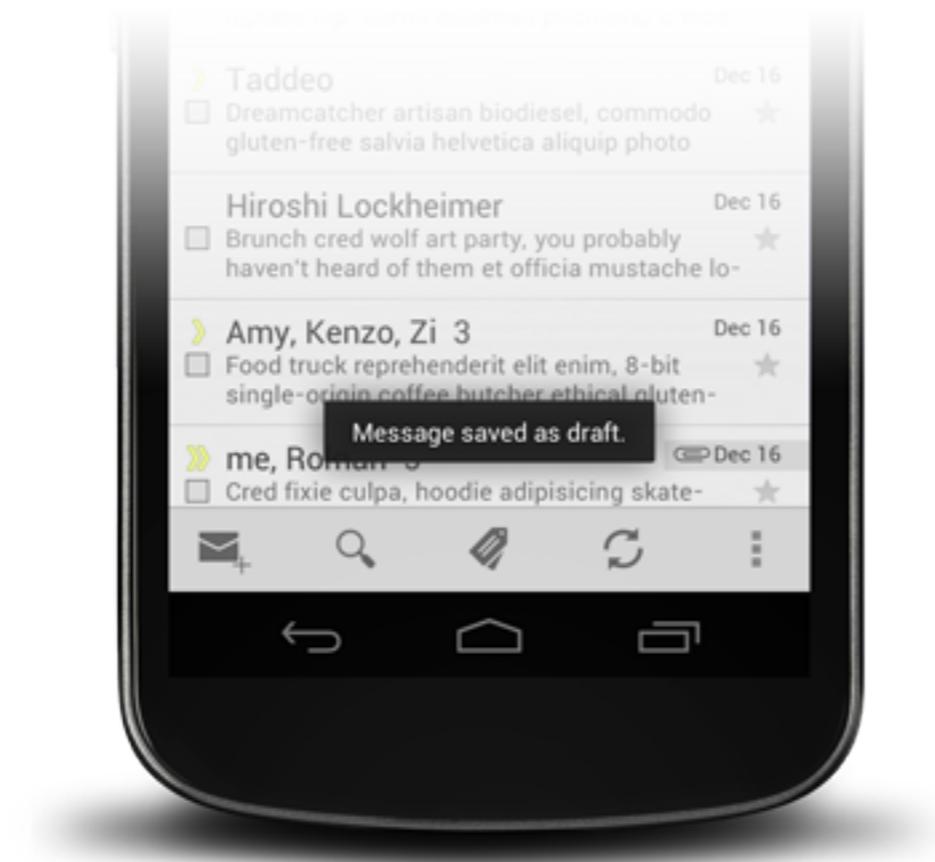
Warning!

Erase USB storage?

Popups



Toast



Pickers

Set data usage warning

▲
1499
1500 MB
▼
1501

Set

Set time

▲ ▲ ▲
7 29
— : —
8 30 AM
— : —
9 31 PM
▼ ▼ ▼

Cancel Set

Set date

▲ ▲ ▲
Sep 06 2010
Oct 07 2011
Nov 08 2012
▼ ▼ ▼

Cancel Set

Recursos de Diseño

<http://developer.android.com/design/downloads/index.html>

<http://developer.android.com/design/videos/index.html>

Bibliografía

<http://developer.android.com/design/index.html>

Continuara...



Gracias

José Díaz